

## Rules Governing the 150 Mile 1923 and 1924 Labor Day Races for \$25,000 in Prizes, Open to the World

1. The race shall be managed and supervised by a Race Committee of five, appointed by the President and confirmed by the Executive Committee of the Yachtsmen's Association of America. The Race Committee shall be in charge of all details of the race and shall have the power to appoint their assistants, sub-committees, officials, etc. Ruling of the Race Committee shall be final.
2. The Race Committee shall serve for a period of three years and thereafter until their successors are appointed.
3. The Race Committee shall decide what racing rules the race shall be run under.
4. The Race Committee shall determine the distribution of prizes. No prizes shall be presented within twenty-four hours.
5. These rules shall remain in effect without change, through and including the 1924 race. Changes, if any, in these rules, to become effective subsequent to 1924 race, may be suggested by the Race Committee, and if approved by the Executive Committee of the Yachtsmen's Association of America may be put into effect not earlier than eighteen months after their announcement.
6. The length of the race shall be one heat of 150 miles.
7. The length of the course shall not be over four statute miles, nor less than two miles. Whenever possible, single turning buoys shall be used with a straightaway between.
8. The race shall be run in such a direction that the boats shall pass turning buoys on their port hand.
9. The competing boats shall be at least 25 feet in length on the water line, and have a water line beam of at least five feet.
10. The hulls of competing boats must have no breaks in the longitudinal continuity of the immersed surface, and must conform to the committee's ideas of what is generally classed as a Displacement type. The keel and chine (or bilge) must be continuous and must extend from the bow to the stern (or stern post). Steps, either transverse or longitudinal, will not be permitted. Surfaces on each side of the keel line between the keel and the chine (or bilge) must be continuous and not contain breaks, jogs, or notches of any description.
11. Competing boats shall be fitted with at least two transverse bulkheads, practically water tight.
12. Competing boats shall have seating accommodations for at least two persons.
13. Competing boats must have the motor compartment entirely closed in with hatches.
14. The power plant shall be of the internal combustion type.
15. The total maximum piston displacement in the engine or engines shall not exceed 1350 cubic inches.
16. Engines must exhaust at stern or under water.
17. Engines shall be equipped with an efficient reverse gear or method of reversing and idling.
18. Engines shall be equipped with an efficient self-starter, carried complete during race.
19. Measurement of Hulls and power plants must be verified prior to the race by a Committee.
20. Entries must be received by the Race Committee at least fifteen days before the date set for the race. An entry fee of \$100 must accompany the entry, which fee will be returned in case the boats start in good faith.
21. There shall be no limit to the number of challenges.
22. Competing boats shall be steered by amateur helmsmen. For the purpose of this race, an amateur is defined as one who is not or has not been within the last five years, engaged or employed in mechanical capacity in the business of building, operating, or repairing boats or internal combustion engines, as a means of livelihood.
23. Competing boats must carry full equipment in the race including floor boards, seating accommodations for two persons, etc.
24. Competing boats must carry a racing number, assigned by the Race Committee and have same painted on each side and stern. Numbers shall be at least fifteen inches high.
25. Competing boats must report to the Race Committee at a place designated by them at least one hour previous to the start of the races, and immediately upon crossing the finish line, competing boats must again report at a place designated by the Race Committee.
26. Competing boats must demonstrate to the satisfaction of the Committee that they are manageable at racing speed and not a menace to the safety of other competitors.
27. The race shall start at 2 P. M. No postponements from the advertised time of start of the race shall be allowed.
28. Boats in order to qualify must show an average speed of 35 miles an hour in 1923 and forty miles an hour in 1924. This speed must be made over two laps of the regular course.



Zane Grey (hat off) and Dr. Wiborn (Lone Angler) of Catalina. Zane Grey, who writes so thrillingly of desert and mountain life, is one of America's authorities on deep sea angling



119 WEST 40th STREET  
NEW YORK, N. Y.

## C O N T E N T S

AUGUST, 1922

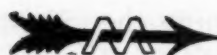
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# MICHIGAN

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### YOU NEED OUR CATALOG

#### Michigan Propellers

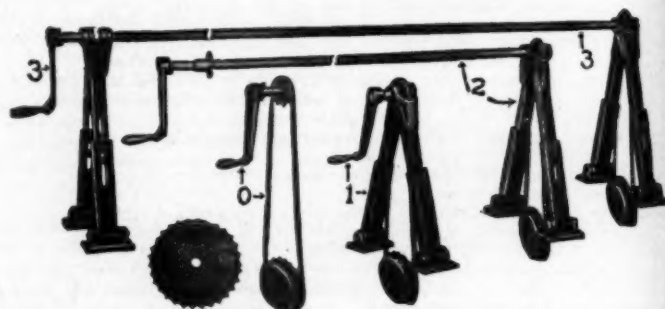
The famous Michigan Propellers have been on the market for many years and are used in large numbers by leading engine manufacturers and boat builders. Our stock includes many popular patterns in two and three blade wheels with special designs for cruisers, speed boats, hydroplanes, racing, towing, weedless, etc.

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The Michigan Adjustable Rear Starter is not only a great convenience in starting the engine, but your wife or daughter can crank the engine with a Michigan because it avoids bending over and the two-to-one or three-to-one gear reduction reduces the strength required to turn the engine over. Adjustable for any width or height of engine bed and bulkhead. Easily installed. Four sizes.

### You Need Our Catalog

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Advertising Index will be found on page 118

# After the Showdown

The great "buyers' strike" of 1920-21, a never-to-be-forgotten event in the economic history of this country, proved a point which must henceforth be recognized as basic and incontrovertible.

It was discovered by merchants and jobbers everywhere, in practically every line of merchandise, that it was the trademarked and adequately advertised brands of goods that got the lion's share of the business there was to get, while the preponderant loss of sales fell on the unbranded and unadvertised goods.

This was a great "showdown" for Advertising. Its position as a factor in economic life was on trial. Had it really done what had always been claimed for it? Had it created consumer preference that would hold against the keen competition of a sacrifice price on unmarked goods?

The verdict of the buying public was unqualified. It was not a straw vote to determine popularity. It was the final test of willingness to buy. The ballots were dollars. And the preponderant majority voted with their dollars that they preferred to keep right on buying advertised goods.

With the whole country on a reduced schedule of production and sales, the factories that were able to keep on producing, in anything like normal quantities, were invariably those making trademarked and nationally advertised goods.

All over the country today manufacturers, jobbers, and merchants are giving serious consideration to this important and conspicuously demonstrated fact: the public prefer to buy nationally advertised brands of merchandise. And public demand is the last word in all economic situations. No one can go against it and long endure.

This will mean, then, that more and more manufacturers will seek out ways to make their products worthy of a distinctive trademark and a sustained plan of advertising. It will mean that merchants will more and more give preference in their stocks to advertised brands. It will mean that the jobbers will more and more arrange to supply the merchant with advertised brands.

But new advertisers, manufacturers who are finally convinced that their future lies in the direction of an advertised product, will discover that the magic power of advertising cannot be applied overnight. It may require sustained effort to attain a position of equality with competitors who have been advertising for many years. This will be an unwelcome discovery. But it will be found to be the truth, and will be their only hope of gaining a substantial foothold in what, from now on, must continue to be a more keenly competitive market than we have known for a generation.

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## ANNOUNCING

# 45-Mile Runabout Price \$5000.00

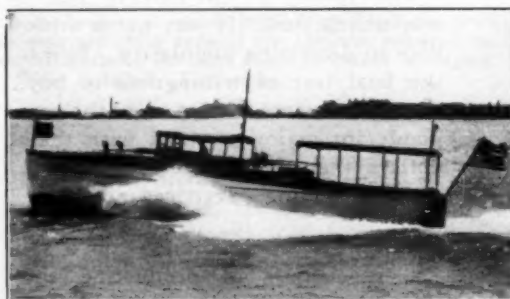
A 30-foot runabout, staunchly built for long life, designed with high freeboard, double planked bottom, batten seam sides for seaworthiness, with accommodations for a party of ten in the cockpits forward and aft, and powered with a 300 H.P. engine for a turn of speed of 45 miles an hour.

While a fast turn of speed is available, the 30-footer is not built as a speed boat, but designed for continuous pleasure service. A gentleman's runabout throughout, completely equipped in every respect, ready for operation; a pioneer type in naval architecture; and an outstanding economic achievement.

Bulletin No. 342, describing the 30-footer, will be of interest to you.



The 54-foot Standardized Express Cruiser reflects the utmost obtainable in a motor yacht; seaworthy, safe, with accommodations for a party of eight and a crew of two, and with a speed of 25 miles an hour; a cruiser without a competitor. Send for Bulletin No. 341.



While the standardized 42-footer is termed essentially a day express cruiser, it has accommodations for a party of four for extended cruising; a boat which reflects the most perfect sense of proportion in the distribution of space; speed 22-24 miles an hour. Send for Bulletin No. 212.

Immediate deliveries may be had

## GREAT LAKES BOAT BUILDING CORPORATION

Milwaukee, Wisconsin

Largest Builders of Express Cruisers in America

# MOTOR BOATING



Photo by M. Rosenfeld

*Meteor III, owned by W. B. Wilde, established a new record of 49.86 m. p. h.*

## Keen Rivalry In Peoria Races

Mississippi Valley Racing Fans Enthused by Interesting Program of Three Days' Sport in Which New Records Are Established

By Vera Thomas Griffith

"MOTOR BOAT racing," George Fitch, author and boat fan, once wrote, "is a cross between daring and insanity, less monotonous than any sport except perhaps the unsanctioned pastime of going over Niagara Falls in a barrel." That in the days when 30 miles per hour was the top notch speed record.

Had Fitch sat in the grand stand at Peoria during the recent annual Mississippi Valley Power Boat Association regatta, July 1-4, and watched the tiny tads on the lake where his own Imp had cruised, reach this record, while the big ones, the demon motor boats of this day, achieved a mile a minute with ease, how would he have characterized the sport? We wonder, and wonder, too, will another decade double or even possibly quadruple this record of today?

Previous time records were not seriously shattered at the Peoria time trials Tuesday morning, July 4th. Only one world's record was broken, when Meteor III, owned by association president Walter B. Wilde, set up a mark of 49.86 m.p.h. for the 705 class, thus topping the 46 m.p.h. made by Peggy, owned by Fred Schramm of Milwaukee at the Milwaukee regatta in June. Miss Chicago did not equal her previously established speed of 76 m.p.h., and other times registered were good but not extraordinary.

Interest centered not in speed for its own sake, but in comparative speed—the racing. Rivalries existing from previous seasons had been quickened to fever heat by some of the results of the Milwaukee contests; recent additions to the field had still untried possibilities. Twenty-seven of the two score registered entrants scored down to compete in roaring around the 2½ mile triangular course. As usual

with Valley events the class system of racing, based on displacement, was followed, and a survey of results is probably best made also by classes.

In the lowest or the 104 class, there were but two starters—and Buddy II, owned and driven by Phil Becker, Jr., of Peoria, easily won both heats, thus retaining the title and trophies.

After an upset in Milwaukee, where Miss Peoria (Com. R. H. Daniels, Peoria) beat Margaret III (L. E. Selby, Pekin, Ill.), the 151 class returned to normalcy, with Margaret III winner in both heats, thus retaining the class championship, hers for many moons. Miss Quincy (C. E. Padgett, Quincy, Ill.), ran a pretty second, with Miss Peoria ranking third. Margaret III and Miss Quincy are champion quick turners and gave the throngs of onlookers many a breathtaking thrill by racing head on towards the grand stand, and then whisking about in an incredibly small space and a swirl of spray.

The sturdy little 151 champion, Margaret III, won first again in the 215 class, with P. D. Q. VI, the latest of a string of P. D. Q.'s, owned and driven by A. C. Strong of Evanston, Ill., taking second place and Miss Quincy third. It was George Fitch who also said, "There are two entirely useless things on this earth—a last year's calendar and a last year's racing boat." But Margaret III disproves this theory entirely, for she has been beating 'em all in her class and out for half a dozen seasons.

Two other ancient enemies on the water course met in the 320 class event, Cadillac IV, owned by Rollen Travis of Peoria and Ethel X, owned by C. P. Hanley of Muscatine,



Start of the 705 class, which was won by Peggy

Ia. A fine field of eight contestants were given the white starting flag. Ethel won the first heat, Cadillac, driven by Leroy Bryant, breaking down in the second lap. Cadillac won the second heat. Ethel had been taken from the water the previous day in the 510 race. Margaret III came in second in both heats. Under the M. V. P. B. A. point system these three boats tied for first place in the event. Both of the newer 320 class entries, Van Dyke II (J. Edwin Walmsley, Evansville, Ind.) and Miss Illinois (J. E. Barteau, Chicago) put forth game but losing efforts to place. The 104, the 151, the 215 and the 320 were all five-mile races.

Practically the same field as the 320 was sent away in the 510 event, with the addition of Janet Virginia, owned and driven by Walter Plummer, Jr., of Maywood, Illinois.

"When is a runabout not a runabout" and "When it is a hydroplane" was the riddle and answer of the Janet Virginia. The boat occasioned not a little discussion at the regatta, qualifying both as a runabout and as a hydroplane. Cadillac won the 510 event with Janet Virginia second and Ethel X third. In the first heat, raced on Monday, Ethel was skilfully driven by Mrs. Ethel Hanley, wife of the owner, and the only woman driver in the Valley. In making an extra lap engine trouble developed, necessitating a tow in and withdrawal from the water. Unavailing efforts were made by the Hanleys to secure repairs before the next day's events.

One of the most hotly contested races of the three days'



Peggy II, owned by Fred Schramm, winner of the 705 class

program was that of the 705 class, a 10-mile event. The lucky number of seven starters got away from the judges' stand in splendid shape for the first heat, which was won by Meteor III, with Peggy, a Milwau-



Tom Webb, host to the boating officials and drivers



Margaret III, the old reliable winner in many classes larger than her own

lee winner, a close second. But the Meteor motor refused to mote properly on the second heat—as even the best intentioned motors do upon occasion—with the result that Peggy came in winner, with Black Diamond second. Peggy got high points for the event.

Badger Girl, the one registered entrant for the 940 class, took the honors of the class, also a 10-mile event, winning in both heats. Badger Girl was built by her owner, Finley Bailey



*Oh Min, owned by Comm. H. A. Parsons, Cleveland, formerly known as Princess Pat*

of Peoria, and was driven to victory by his son, Jim Bailey. Meteor III ranked second in the event and Do-She-Go (M. R. Ellis, Peoria) third. It was during the second heat of the 940, the last event of the three days' racing, that the watchful

to the bottom. Her driver and her mechanic were easily picked up but poor Peggy had lost the heat.

The title for the 1300, 5 mile race, was also won by Badger Girl with a second in the first heat and a first in the second. Peggy won the first heat, but did not enter in the second. Bradley Tech, the second entry of Phil Becker, Jr., Peoria, secured third money with a second in the second heat although she did not appear in the first.

Commodore Harry A. Parsons of Cleveland, owner and driver of Oh Min—and by the way, how many boat fans recognized under this democratic cognomen the more aristocratically named Princess Pat of last season?—joined the noble order of the Hell-divers, when on a sharp turn around the upper buoy on the second lap of the second heat, he was thrown from his boat.

Miss Chicago, with George Wood at the wheel the first day, Sheldon Clark the second, and with Bernard Smith mechanic, successfully defended her possession of the Webb trophy and her title as Valley Champion, winning over Oh Min in both heats of the 15-mile race. Miss Chicago's fastest lap was made at 59 m.p.h. Gar Wood's Miss America scheduled to contest the trophy with Sheldon Clark's boat sustained an injury in the Detroit river several days previous and was not shipped to Peoria.

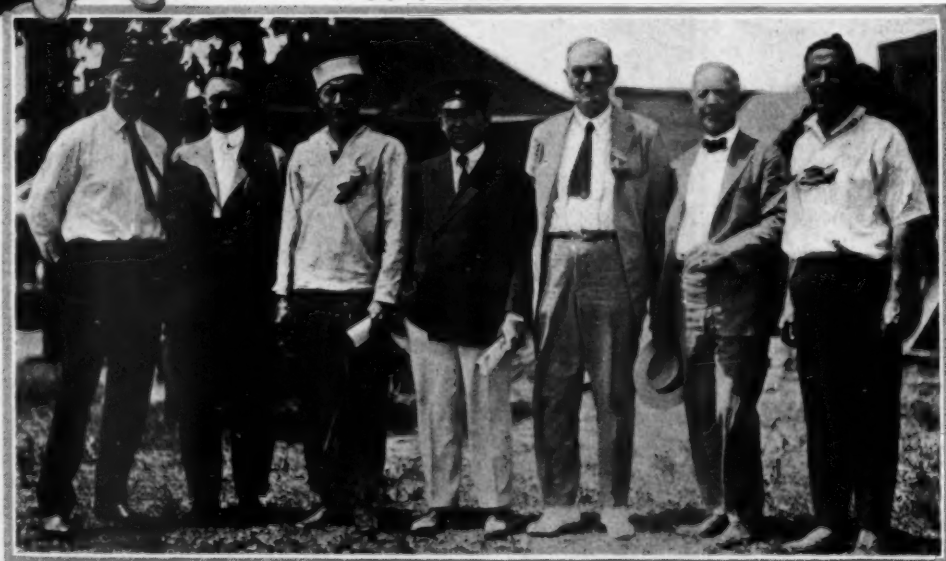
Janet Virginia, the dual personality boat of the regatta, won the two class runabout events, the 610 and the 625, and tied with Panhard II, (Continued on page 62)

Photograph by Rex Studios



*Sheldon Clark of Chicago, and W. H. Parkam, Secretary-Treasurer of the Southern Yacht Club, New Orleans*

waiters in the grand stand and along the shore who had stayed to the bitter end were given a thrill by viewing Peggy in an entirely impromptu and most spectacular nose dive. Peggy had led the entire field and Badger Girl by several seconds at each lap, when just as she rounded the buoy at the close of the third lap, a too short turn caused her to plunge



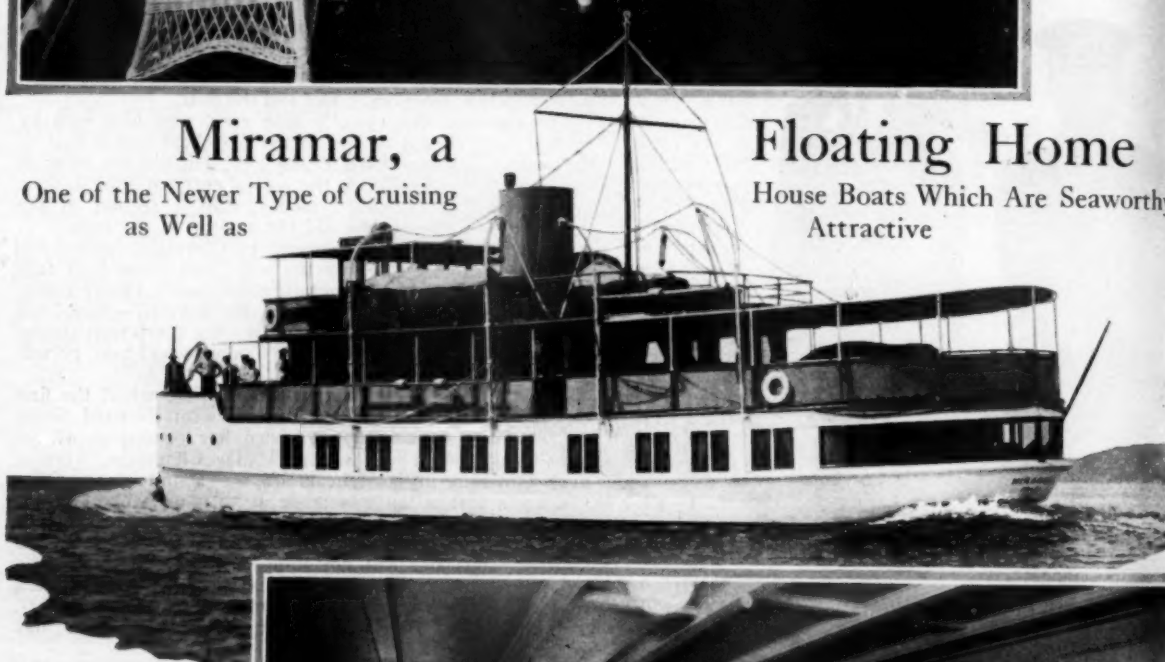
*A group of M.V.P.B.A. officials: W. B. Wilde, Peoria; N. A. Peterson, Moline; Dr. A. C. Strong, Evanston; Sheldon Clark, Chicago; R. A. Maples, Clinton; A. T. Griffith, Peoria; C. P. Hanley, Muscatine*



The quarter-deck of Miramar is very large and spacious. Ample room is provided so that the full party may rest in comfort and ease. She was designed for service in northern waters in summer and southern waters in winter.

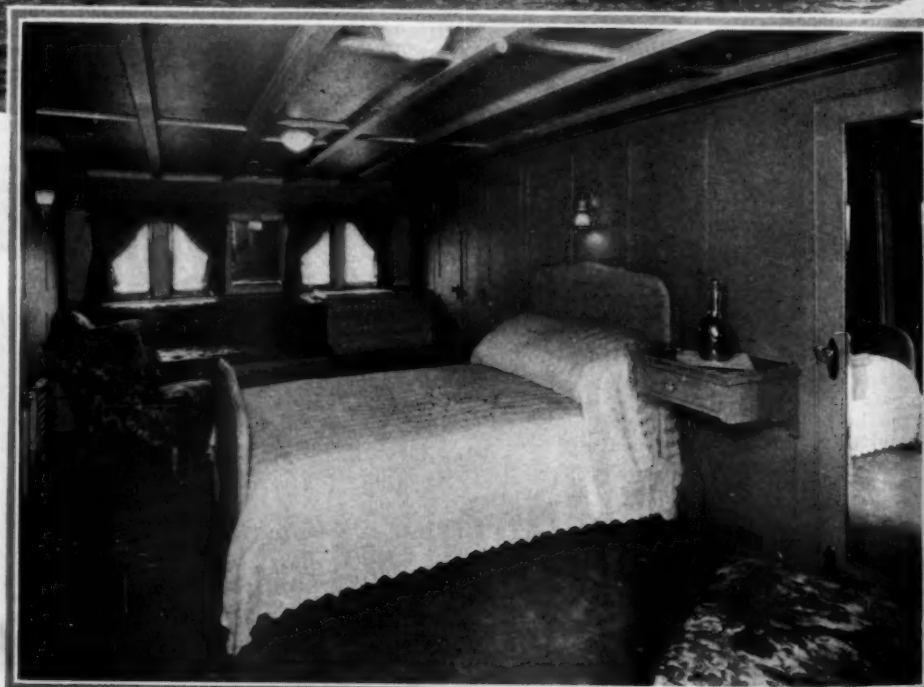
**Miramar, a**  
One of the Newer Type of Cruising  
as Well as

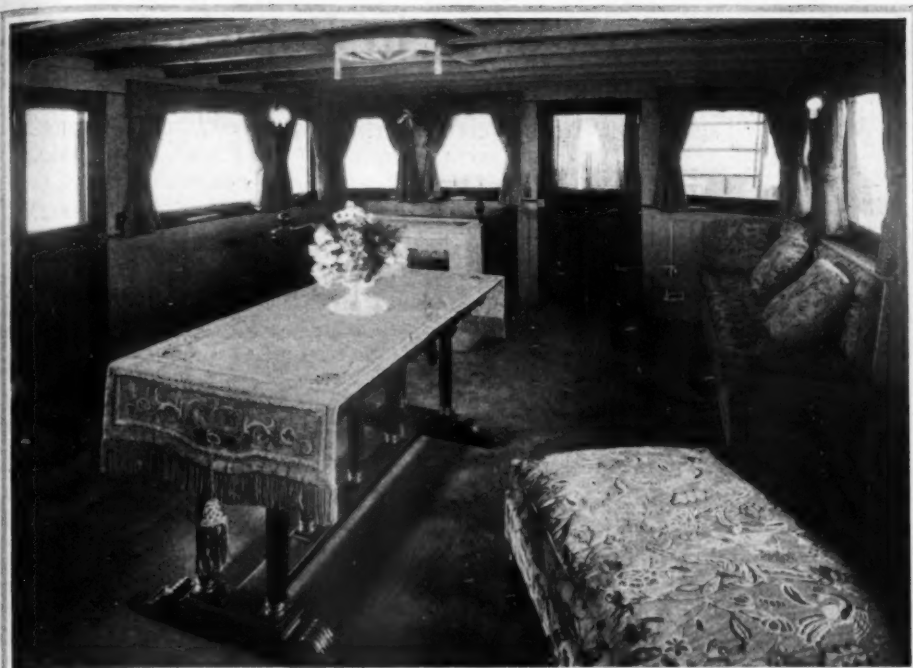
**Floating Home**  
House Boats Which Are Seaworthy  
Attractive



Photographs by M. Rosenfeld

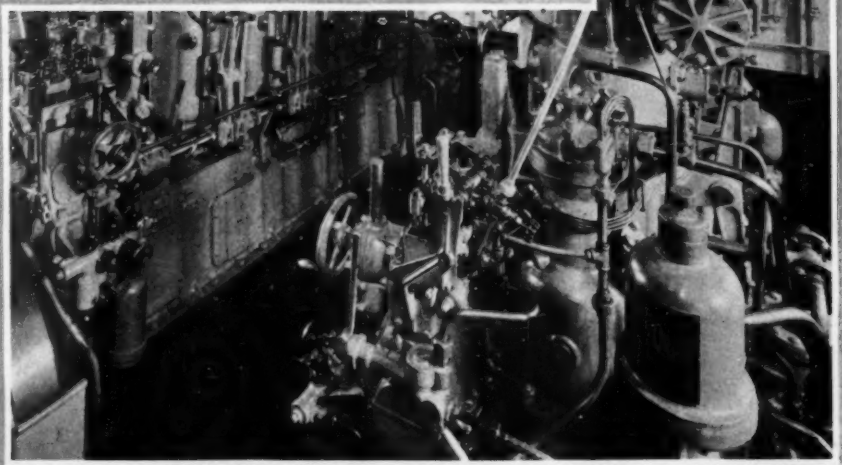
The quarters of the owner, L. H. Eisenlohr, of Philadelphia, are attractively furnished and very pleasing. In the limited length of this boat her designer, H. J. Gielow, has found a wonderful amount of space and has turned out a most attractive vessel from the yachtsman's point of view. The appearance of the vessel has not been spoiled in order to secure the required accommodation.





The reception room in which the visitor is first introduced to the yacht is also a roomy and spacious place. It is attractively furnished and artistically decorated without ornate effects. It is in the deck house which is 44 feet in length and 14 feet in width. This is constructed entirely of mahogany panel work

Miramar is the first of the so-called power house boats to be fitted with heavy oil engines of the Diesel type. She has two Nelsco engines of 120 h.p. each which drive her over 13 m.p.h. Fuel capacity for 3,400 gallons is provided so that she has a cruising radius of 2,500 miles at full speed



The dining saloon is finished in ivory enamel and upholstery and hangings of delicate French tints giving a very pleasing effect. Miramar was built by Kyle & Purdy at City Island under the supervision of H. J. Gielow, the designer. She is 100 feet 9 inches in length, and 21 feet in breadth, while her draft has been kept to 4 feet 6 inches when fully loaded

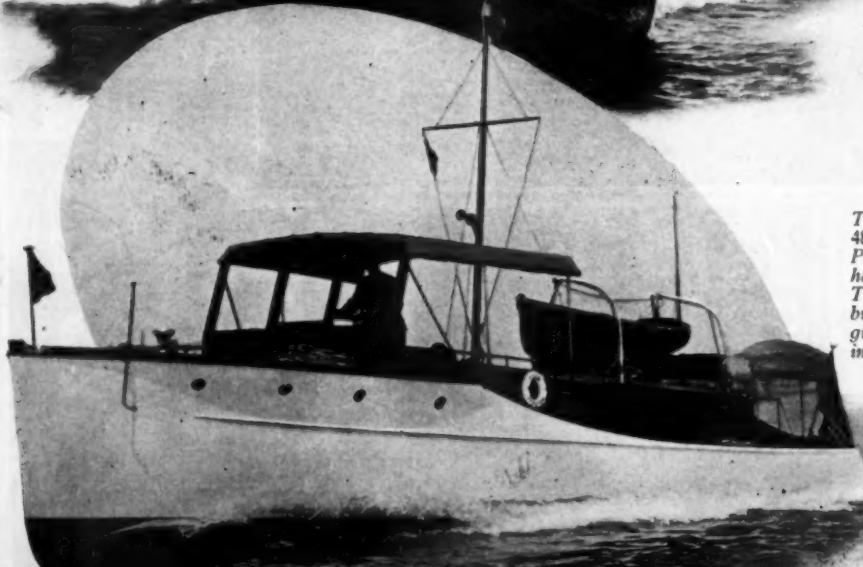
# Express Cruisers Growing in Popularity

Excellent Examples  
Speed When

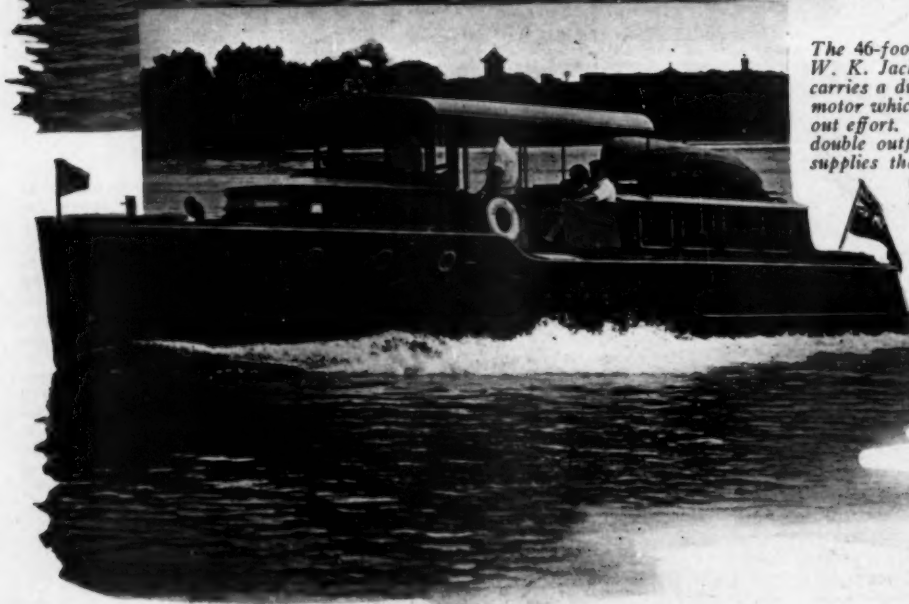
of the Boat Builders' Art Develop High  
Equipped With Powerful Sterling Motors



*Rip, a 43-foot high speed cruiser owned by E. C. Hammond, of Boston. She is fitted with a single, dual valve, six cylinder Sterling motor, which turns at 1,500 revolutions and drives her about 27 m.p.h. Her equipment includes a Delco 1/2 k. w. electric system and auxiliary batteries, as all possible domestic appliances are carried*



*Tofa is a round bilge cruiser of 48 feet in length, owned by G. G. Peters, of Boston. Some features of her construction are worth noting. The galley is far forward with no bulkheads between it and the engine room. A special GR six cylinder Sterling motor drives Tofa at a 20 mile cruising speed*



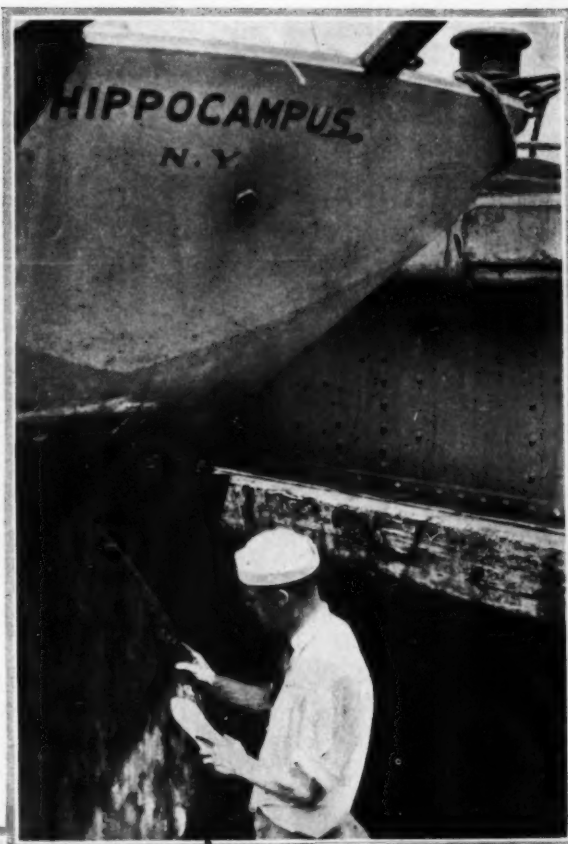
*The 46-foot cruiser Evelyn III built for W. K. Jackson in Montreal. This boat carries a dual valve six cylinder Sterling motor which pushes her at 20 miles without effort. A Matthews lighting set with double outfit of Edison storage batteries supplies the auxiliary power. The boat is a complete mahogany job and very elaborately equipped*

# Hippocampus Renews Her Youth

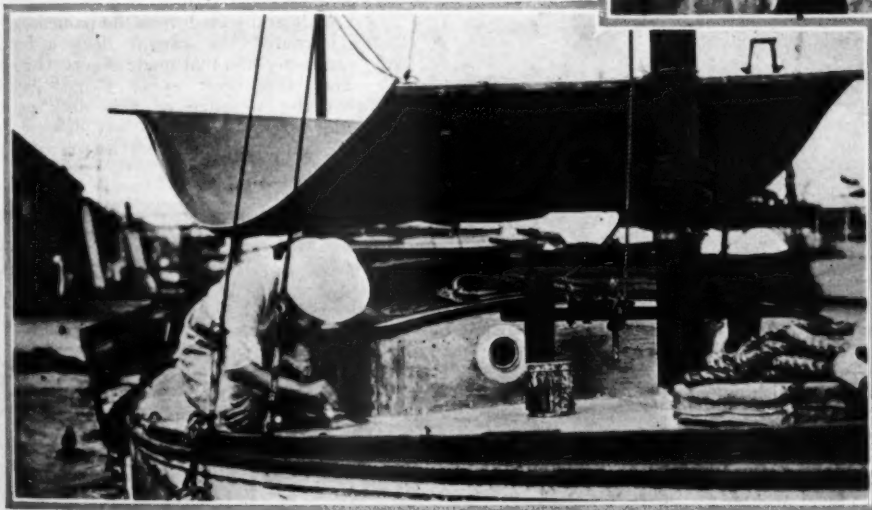
Twenty-Eight Foot Auxiliary Yawl That Sailed From New York to Panama Greeted A New Captain As Her Old One Recommissions Her for the Spanish Main

By Alfred F. Loomis

EVERY MoToR BoatinG reader remembers Alfred Loomis' stories last year describing his cruise in his little auxiliary yawl, Hippocampus, from New York to Panama. These articles appeared exclusively in MoToR BoatinG and will soon be published in book form. After sailing through the Canal to the Pacific, Mr. Loomis returned to Gatun Lake, where he put his boat out of commission while he came back to New York via steamer. We are bound by oath not to disclose the reason for his return to New York. But we can say that Skipper Loomis has now returned to Panama and he hasn't gone alone, either. Neither are his former shipmates, Squibb and Chambers, with him. Hippocampus has a new first mate. We'll have to leave it to the author to describe her to you, which we're sure he'll do sooner or later. For this reason, together with the fact that Mr. Loomis is to cruise to lands and islands which even by name are unknown quantities to most yachtsmen, his stories, which will appear every month for the remainder of the year in MoToR BoatinG, will be more interesting than ever—Editor.



Loomis gets to work with the scrub brush cleaning the accumulated slime from the rudder



The new skipper of Hippocampus turns to on the deck, throwing consternation into the Canal Zoners, who say that a woman's place is around a bridge table

"THIS morning, in the first high wind of the season, Hippocampus went adrift, and—"

So commenced a letter from Captain Kariger, in whose charge I placed my 28-foot auxiliary yawl when I returned to New York from the Panama Canal last fall. Reading it, my heart misfired in both cylinders, for its functioning is pretty definitely connected with the fortunes of the little Hippo. Then I summoned up what courage I possess to read on.

"—and lost her anchor. As there happened to be a man aboard her at the time, she is otherwise undamaged."

My internal engine resumed its seventy-two r.p.m., and continued its normal cycle up to my arrival in Gatun, C. Z., on the morning of June 21. Here it suffered a short circuit when I learned from Jim, the Nicaraguan who tended the boat in my absence, how narrow an escape from destruction she had. Anchored in Gatun Lake, the yawl was sheltered

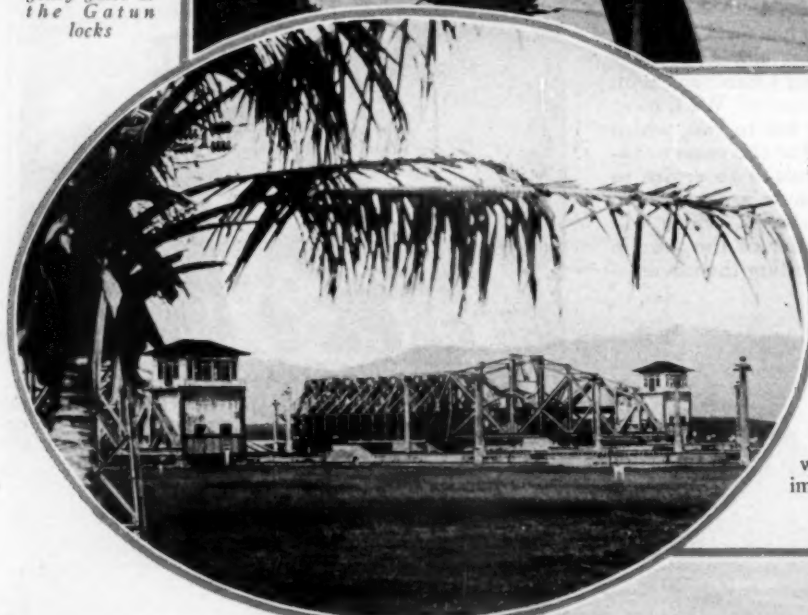
from all winds except those from the southeast. It was from this quarter that a half gale blew up early in May, and Jim, fearing that the anchor line had become rotted after seven months' immersion, went aboard to replace the line with a new one. He had no more than stepped to the deck when the line parted, and it took quick action to get the short end of it to a buoy as the boat sailed merrily toward the stone abutment of Gatun dam.

This incident was so like a dozen happenings of last summer's cruise that I was immediately assured that the little Hippo had not changed her disposition during her long period of tropical idleness. Readers of this magazine may recall that she was forever and always getting herself into narrow squeaks and pulling through by a combination of native ability and inherent luck. Where a less gifted packet would now be bleaching her bones on any one of half a dozen reefs between here and New York, Hippo rides serene,

Typical quarters of Canal Zone employees at Gatun. An army team appears in the foreground



A view of the immense emergency gates at the Gatun locks



Perhaps others will share my interest in learning how a small yacht, born and reared in northern waters, survived the intense heat of a tropical winter. Before I left her last September I removed everything portable—booms, gaffs, running rigging, and interior equipment—and cleaned the boat outside and in. Her sides were given a farewell coat of white, and with odds and ends left in the paint locker I coated the canvas deck a lurid salmon hue that made observers gasp and blink their eyes. I half hoped that the violence of this deck paint would force the sun in self defense to impose a permanent cloud between itself

awaiting a final coat of paint and a continuation of her adventures.

One mishap—a mere trifle—did befall her. Shortly before my arrival here the midshipmen from Annapolis made Gatun Lake their headquarters, descending on the canal in three battleships and one cruiser. For the ten days that they were here, absorbing the culture of Colon and Panama City, the usually placid waters of the lake were whipped to confusion by admirals' barges, captains' gigs, and gobs' motor-sailers. One evening the Hippo, feeling a bit restive in the swells from the speeding small boats, rolled in her sleep and ripped away part of the starboard sheer-strake—one of the very strakes, by the way, that suffered damage when the avalanche of rocks fell on us last year in Florida. A competent carpenter has replaced the injured member, and Hippo is again the rightest, tightest little ship that ever sailed the Spanish Main.

Hippo as she looked after nine months of tropical existence, alongside the wharf of the light-house depot in Gatun Lake, Panama Canal





*Loomis takes a trick aloft*

and the boat, but I am informed that my hope was realized only during the latter half of the wet season, when it rained more or less continuously for two months.

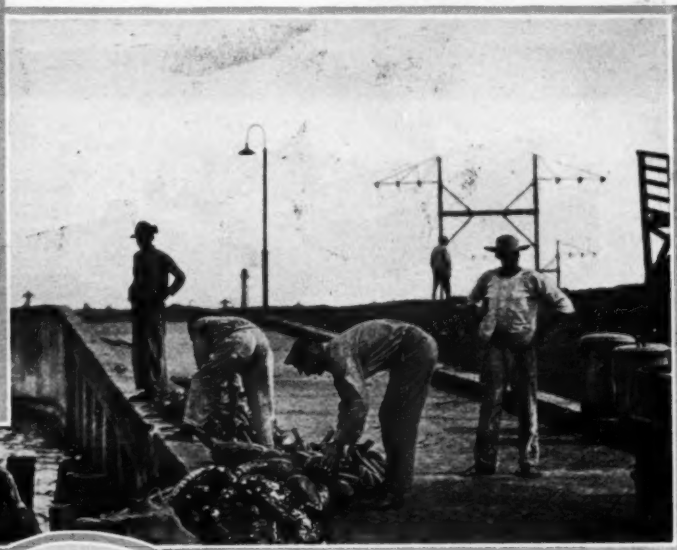
From January to May the sun beat down with unclouded vigor and bleached the deck to a pale pink, at the same time baking the varnish off the masts and the oak trim and destroying three or four mast hoops. The bilge oil which floats on the surface of Gatun Lake as it does on the waters of every harbor where modern steamships ply, smeared the white sides, and the rain, falling again in May, rusted the wire shrouds and ruined several turnbuckles.

Once a week during my absence Jim turned the engine over to keep it from "freezing," and twice he cleaned it off and painted it with a rust-proof compound. To protect the hull from sun and rain I sent from the States a canvas winter cover for the boat, but this cover I now find to have been burned in the hold of the ship on which it was shipped. Consequently, the only protection was the khaki awning and as a result of its exposure to wind and sun, this has now left its palmiest days behind it.

Such was the condition of the Hippocampus when captain and crew went aboard to put her into commission. And now for a word about the ship's per-

sonnel. When the word is written let each reader determine for himself which is captain and which crew. The simple fact is that in consummation of a long cherished dream, Mrs. Loomis is my companion on this summer's expedition. Having spent her summers for several years on Buzzards Bay my wife is a more experienced sailor than me, and I think I may say without ruffling the sensibilities of those most concerned that she is an excellent substitute for my old shipmates Joe Chambers and Joe Squibb. Following the precedent established by those admirable sea dogs (both of whom, by the way, are now hunting wild oil wells in South America) she is dubbed "Jo" aboard ship, and as such she will be recognized in the following pages.

Jo's presence on this venture seems to inspire our isthmian friends to go to the bottom of their yarn lockers and tell us the awfullest stories of shipwreck and sea disasters that have ever sullied the veracity of an amateur Munchausen. Linger over



*Native roots and bananas being unloaded at Gatun Dam*



*Hippocampus hauled clear of the water by the derrick at the lighthouse depot*

the bountiful table of Mrs. Robinson's, where we are boarding during the time of putting the Hippo in commission, we hear of gales that arise from a cloudless sky, of waves that spring up from a placid sea, of small boats "just about the size of Hippo" that have left port and vanished into eternity.

Now, in a short life that has been more or less intimately connected with the sea, I have heard some tall stories, and to all of them I have listened with rapt, respectful attention. Outwardly, I believe everything that is told me, although inwardly I may make my reservations. But in the present case I was somewhat concerned with the effect the stories might have on Jo. In some ways she has not had the advantages that I have enjoyed. She has never—to go no farther afield than a single instance—been privileged to sit on a stringpiece in Gloucester and listen to a truthless old codger weave yarns while a pale moon grew paler and sank lower with each preposterous tale.

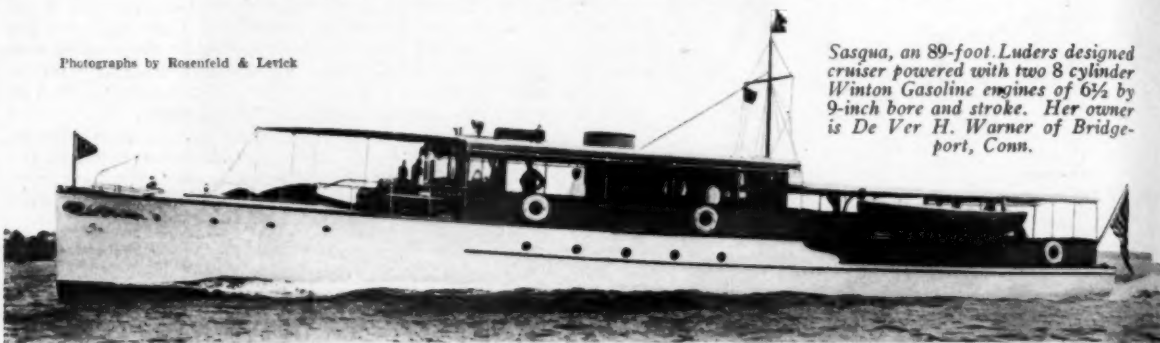
So, at the conclusion of the story about the Panamanian sloop that sank with all hands when there was no sea running

(Continued on page 66)

# Among the Visitors at New London

Annual Rowing Races Bring Out a Large Gathering of New and Representative Motor Yachts From All Sections of the East

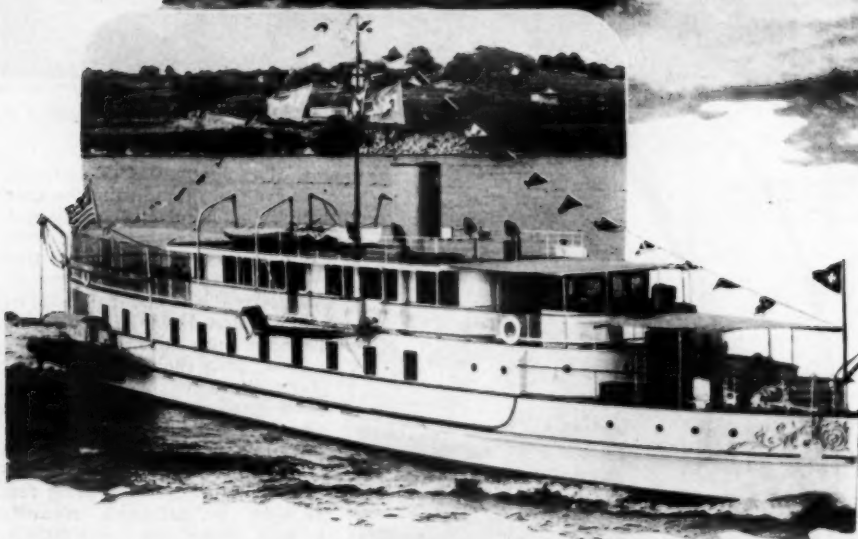
Photographs by Rosenfeld & Levick



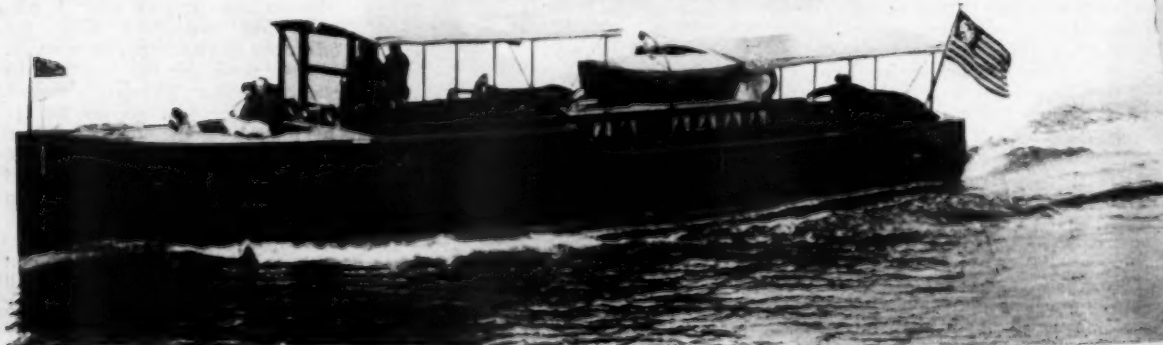
*Sasqua, an 89-foot Luders designed cruiser powered with two 8 cylinder Winton Gasoline engines of 6½ by 9-inch bore and stroke. Her owner is De Ver H. Warner of Bridgeport, Conn.*



*One of the new high speed runabouts of the Baby Gar type owned by Caleb Bragg of Port Washington, Long Island. This boat can do about 50 m.p.h. without effort*



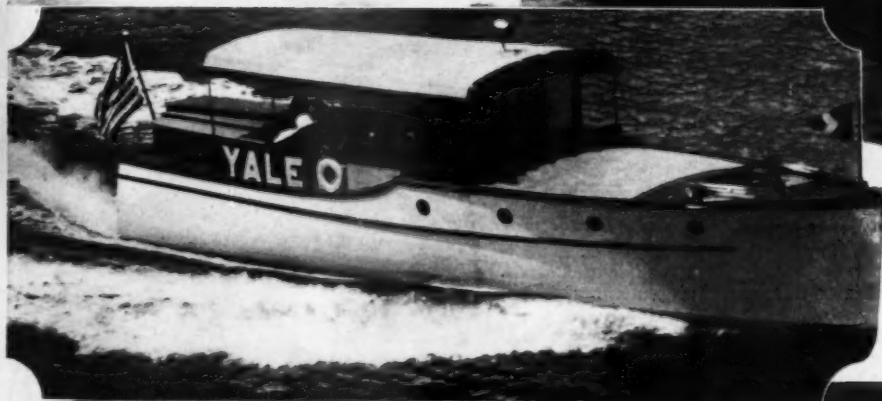
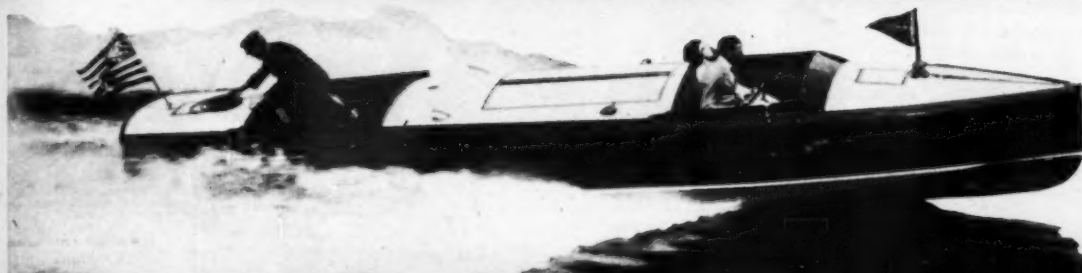
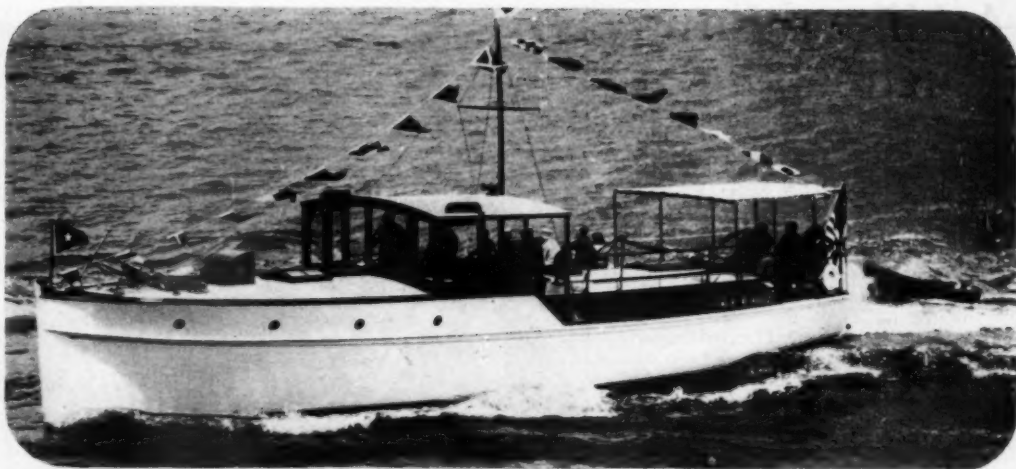
*Pioneer, a modern example of cruising house-boat built by Mathis Yacht Building Co. and powered with two Standard gas engines, with 10 by 11-inch bore and stroke*



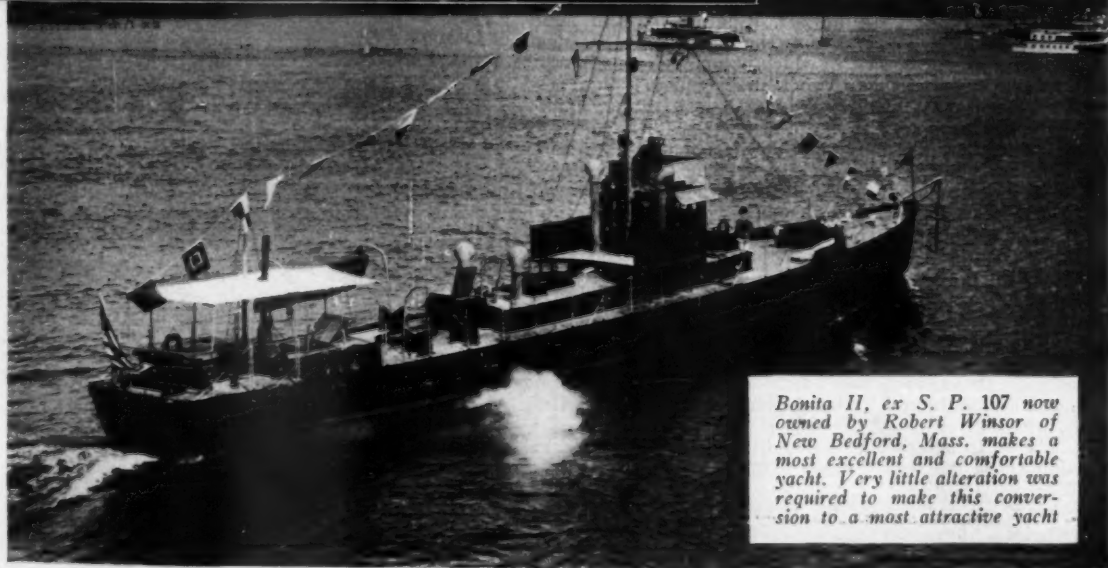
*Skipaki, a 60-foot express cruiser designed and built by the Consolidated Shipbuilding Corp. for Henry P. Davison. Her two Speedway engines drive her about 24 m.p.h.*

Katherine came down from the Eastern Yacht Club. Her owner Henry R. Dalton of New Bedford, Mass. is well pleased with the boat and its Sterling engine

Another high speed runabout is that owned by Nelson Doubleday, powered with a Sterling Sea Gull motor and built by the Red Bank Boat Works



Adriel Too, a 36-foot Hand designed express cruiser built by the Portland Yacht Yard. Her owner L. M. Brooks of Chester, Conn. is a staunch Yale supporter



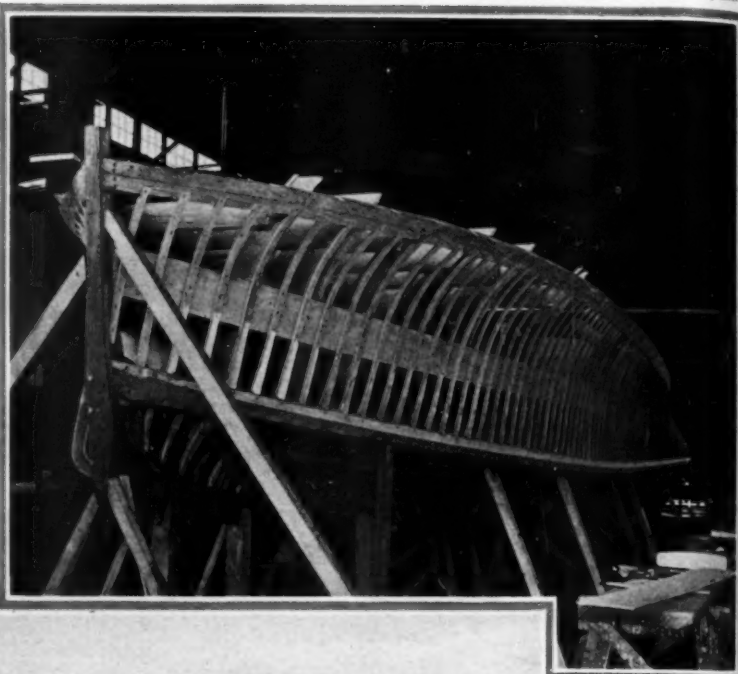
Bonita II, ex S. P. 107 now owned by Robert Winsor of New Bedford, Mass. makes a most excellent and comfortable yacht. Very little alteration was required to make this conversion to a most attractive yacht

# A Mile a Minute Runabout

The New Generation of the Ringling Family Has Become Interested in the Fastest Boats that Can Be Produced

FOR many years the Ringling Family, of circus fame, has been identified in the minds of the public as most enthusiastic yachtsmen. Heretofore their activities in this direction have been confined to express cruisers and large yachts. However, the younger generation is going a step farther and has become interested in the fastest boats that can be produced.

Robert Ringling, whose home is at Evanston, Illinois, but who is really everywhere in the Summer and in Florida in the Winter, has gone in for fast runabouts. His latest boat is a 32-footer, built by the Great Lakes Boat Building



*Viroling in frame at the plant of the Great Lakes Boat Bldg. Corp.*

*Robert Ringling, the owner, who promises to be a strong contender for racing honors*

*When running wide open Viroling lifts its entire length clear of the water*

Corporation, which he has named Viroling and which, without doubt, reflects the utmost obtainable in speed in a gentleman's runabout.

The design and construction are probably the most complex and comprehensive that have ever been undertaken in a boat of this size and type. The problem was to get maximum strength and seaworthy qualities in as light a hull as could be produced. Not only did Mr. Ringling have in mind racing Viroling, but also using her for off-shore runs, as evidenced by a recent trip which he made from Chicago to Milwaukee in less than two hours in a heavy sea.

The construction involves the use of sawn frames built of five-ply Haskelite with steam bent frames bent outside and inside thereof on 2 foot 9 inch centers, and steam bent frames running from keel to sheer on 5 inch centers; and with keelsons of Haskelite running from stem to transom. The hull is double planked, both bottom and top sides, and fitted with Haskelite deck beams and decks of the same character. Other fore and aft reinforcements are provided in the way of chine stringers and clamps, so that the hull is so rigid it does not work a hair in a heavy sea, notwithstanding the fact that the total weight has been kept within minimum limits. The finish and equipment has been made to reflect the utmost obtainable. The hull is natural finish mahogany throughout, and all the fittings are of bronze. The upholstery is in red leather in both the forward and aft cockpits, which gives a most striking combination of colors.

The performance of Viroling in action is most remarkable in that at full speed it lifts its entire length and thereby loses displacement and drives with the least friction. So often in high speed construction, the boats lift far out by the head and squat aft. Perfection from the viewpoint of naval architecture is having a boat lift its entire length with only a small part of the forefoot showing.





The launching party consisted of J. A. McDonald, Bruce Scrimgeour, General Manager of the Consolidated plant; Mrs. John Ringling, and John Ringling, the owner; President John J. Amory, of Consolidated, and Mr. Emanuel

Mrs. John Ringling ready to break the bottle just before Zalophus started down the ways

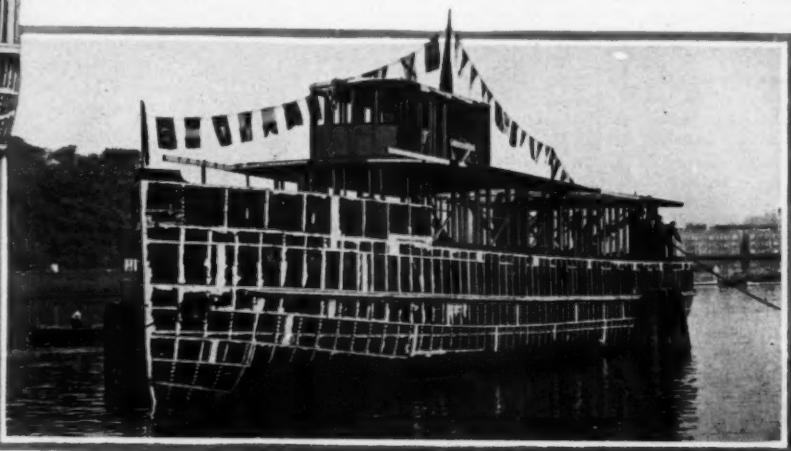
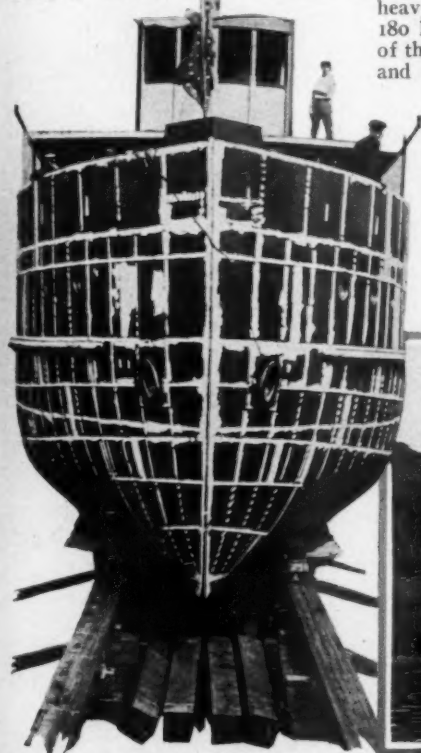
## Launching of the Houseboat Zalophus

New Motor Houseboat With Unusual Features Rapidly Nearing Completion at Consolidated Shipbuilding Corp.

**A**N all steel vessel of 125 feet length has just been launched at the yards of the Consolidated Shipbuilding Corp., Morris Heights, N. Y. This new craft is to be a motor house boat for John Ringling and has been christened Zalophus. She was designed by Henry J. Gielow,

and her motive power is to consist of a pair of heavy oil Nelseco Diesel engines of 180 h.p. each. The combined weight of these machines will be over 20 tons, and sufficient fuel will be carried to provide a cruising radius of more than 4,000 miles.

The electrical equipment is unusually complete and consists of two 2½ k.w. Winton generating sets with the large type Edison storage batteries. This equipment will be sufficient to take care of all electrically operated appliances and machinery on the boat. A cold storage plant using a Clothe ethyl-chloride refrigerating machine is carried, which will enable the vessel to cruise at great distances from bases of supply.



Zalophus on the way to the water and after she came to rest

# Seventy Years a Yachtsman

Commodore Alexander I. McLeod of Detroit and Algonac, Mich., By  
Careful and Successful Navigation Arrives at Latitude Seventy—The  
Weather Forecast is That the Commodore Will Reach the North Pole

**A**LTHOUGH Commodore Alex. McLeod celebrates his seventieth birthday this month, his robust constitution and youthful activity would qualify him as an able-bodied seaman on any ship that sails. Any one who has attended the Gold Cup Regatta at Detroit or any of the Great Lakes Yachting events has felt the charm of the wit and oratory of the Commodore, for he is as necessary to give the finish to a sailors' banquet as a grape juice highball is to a prohibition gathering.

Starting life in Providence, R. I., in 1852, Commodore McLeod came within an ace of being a down East Yankee skipper. The crash of his father's shipyard, McLeod & Salsbury, in the panic of 1857, saved him from this fate, because Alexander I., Sr., brought the family west to Mount Clemens, Mich., where Alexander I., Jr., at the age of 5 years, got his start as a fresh-water seaman. At Mount Clemens the elder McLeod engaged in boat building and turned out several small lake schooners.

Two years later, in 1859, the McLeod clan left Mount Clemens flat and moved to Detroit, where father became superintendent of the Campbell & Owen Shipyard, afterward the Detroit Drydock Company. Here Alexander I., Jr., was brought up between the shipyard and the public schools, including the High School, which stood where Capitol Square now is located.

At the age of 18, following the conclusion of his school work, Commodore McLeod did his first real bit of sailing, going before the mast for a season on the good ship Reindeer, Captain Bamford. One year on the lakes sufficed for the young seaman and he leaped to dry land in the fall, taking a job as cub reporter on the old *Advertiser and Tribune*, one of Detroit's leading morning and afternoon dailies of that time.

After two years of newspaper work our hero made the leap that so many reporters do. He jumped into public office in 1873 as Clerk of the Recorder's Court, a much coveted position and one not usually given to a youth of Commodore McLeod's years. He was 21 when he landed and was and is the youngest Recorder's Clerk on record.

Four years in public office caused young McLeod to again become restless and to seek new fields to conquer. This time he headed north, and from 1876 to 1879 he served as superintendent of the Wood Chemical Works, located in Flint and Bangor, Mich. Savings of previous years were invested in the chemical works and a good profit was turned; so good, in fact, that in 1879 he cashed in and literally went south with his money.

Arrived at Cincinnati, Commodore McLeod bought stock in an Ohio River steamboat, on which he served as chief clerk till 1881. At about this time the railroads began to close in on the Ohio and Mississippi River steamers and to drive them from the field of competition. The steamboat business in general collapsed in '81 and so did the personal fortune of Alexander I.

Wiped out in the steamboat field, the irrepressible Alexander went back to his old meal ticket, newspaper work, as so many of his predecessors and his successors have done when Fate did not smile kindly upon them in the business world. In 1882 he became City Hall reporter for the *Detroit Evening News* and some time later he became City Editor of that paper, remaining on the city desk till 1889.

The inherent call of the water was too great, and in 1889 he succumbed to the lure, going back to the Great Lakes as second mate of the Steamer John Owen, which came out that year and in which McLeod had made a financial venture, investing the savings of nine years, or since the fall of steamboating on the Ohio. These savings, with a little borrowed capital, represented stock to the amount of \$10,000, a goodly sum in those days.

The winter of 1889-90 saw the syndicate owning the John Owen sell out at a good profit. McLeod was foot-loose again and had some capital on hand. In the meantime Hazen S. Pingree had been elected Mayor of Detroit. Pin-

gree and his advisers thought that McLeod, because of his intimate knowledge of city affairs, through his newspaper connections, would be the right man to pilot the new Mayor through the rocks and shoals of Municipal Channel, and persuaded him to undertake the job for one year. This he did, but the game became so exciting, as any one who recalls the Pingree times will remember, that McLeod stayed with the Mayor until he was elected Governor of Michigan, a period of nearly five years, instead of one. Thereby the public welfare probably gained, but the private affairs of the Commodore had been sadly neglected.

Along about 1894 the office of County Treasurer was still on a fee basis and brought in a handsome income to the citizen fortunate enough to gain the position. Alexander I. stepped out for it in '94 and landed, retaining the position till 1898. During this period he became a member of a syndicate which established the Detroit Telephone Company, later merged with the Michigan Company. This syndicate also built telephone systems in New Orleans and several other cities.

Beginning with the first year of the Twentieth Century Mr. McLeod's activities became more diversified and up to 1912 he continued very active in all of his enterprises, including the reorganization of the Central Savings Bank of Detroit, of which he is a director and vice-president; the organization of the Maxwell-Briscoe-McLeod Company, of which he was president; the Atlas Foundry Company, of which he was treasurer; the Detroit Reduction Company, of which he is president and treasurer, and a number of others.

From 1912 to 1922 Mr. McLeod has been gradually withdrawing from business activities. He has always taken an active interest in public affairs, however, and in 1910 was a member of the Charter Commission, and later, until his removal from Grosse Pointe Shores, one of the Board of Trustees of that village, which was organized under Michigan's Home Rule Act, which enabled it to become one of the most progressive and up-to-the-minute villages in the State of Michigan.

Commodore McLeod was married in 1876 to Frances A. Millington, of New York, and has one daughter, Frances Janet.

Along in the 70's Detroit was recognized as quite a boating center and on one occasion a grandstand seating thousands was erected along the river bank to witness these interesting events. Commodore McLeod achieved great fame in those days by reason of his series of victories.

His successful achievements continued up until 1901 when, with a 41-foot yacht named Old Detroit sailing under the Detroit Yacht Club colors, he made a clean sweep of the district.

So thoroughly interested was McLeod in the subject of yachting that he published *The Amateur Yachtsman*, which in its day was looked upon as a text book and recognized as an authority.

Of late years he has participated in many races and manages to attend almost every regatta on the Great Lakes, accompanied by his wife, who is equally interested in aquatic sports and boating.

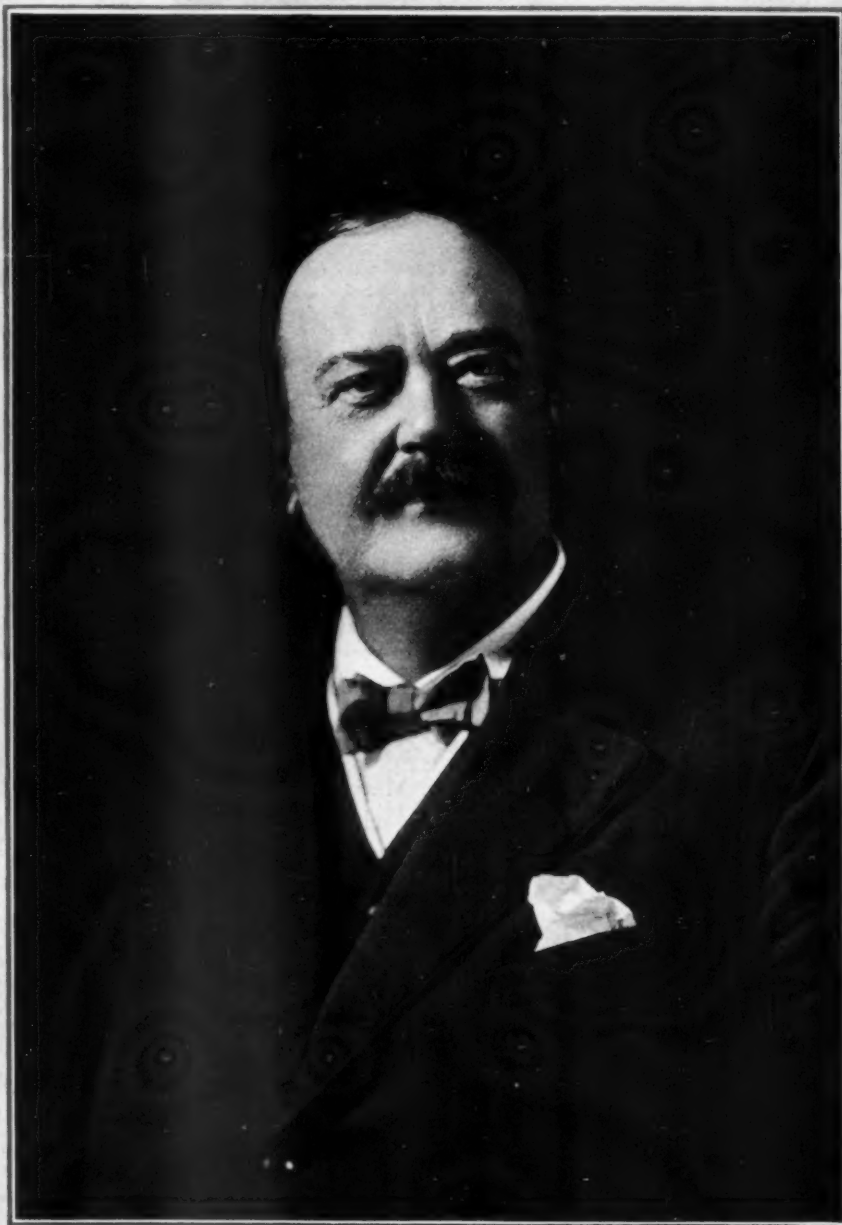
McLeod was formerly Commodore of the Detroit Yacht Club and is now a director and actively interested in the construction of the new half-a-million-dollar clubhouse which is nearing completion on Belle Isle and said to be the most magnificent yacht club in the world.

He is Vice-Commodore of the Gold Cup Committee and of the Miss Detroit Power Boat Association and a Director of the newly organized Yachtsmen's Association of America.

At the dinner that will be given in honor of his 70th birthday one of his friends stated he would be asked to talk on the subject of water—since he is so fond of it and uses it so freely—for drinking, swimming and navigating, and what more could one do with the fluid of life?

## Commodore Alexander I. McLeod

Photograph by C. M. Hayes & Co.



*Commodore McLeod, known to all as the Dean of Fresh Water Yachtsmen. Although he was actually born on salt water, he has taught the fresh water sailors many of its traditions and to love the sea*

*Pueblo, the 28-foot Hacker runabout powered with a six cylinder Hall-Scott marine engine which averaged 40 m.p.h. for 120 miles. The inset shows the party on board at lunch during the trip*



## To the Days of '49

A 28-Foot Runabout Is the Modern Conveyance Used To Carry a Large Party With Speed and Comfort

THE celebration of "The Days of '49," held in Sacramento recently, was attended by visitors from far and near. A party consisting of the family of R. R. Strange, D. C. Scott, G. De Saules, and L. S. Scott used the 28-foot Hacker runabout Pueblo, powered with a six-cylinder Hall-Scott marine engine and owned by Mr. Scott, to make the journey from Oakland to Sacramento. Meeting at the boat house of Pueblo in Oakland early one morning, a start was made in the face of a strong southwest wind. The run out of the Oakland Estuary was made at 35 knots. As the open bay was reached, it was necessary to decrease the speed to 30 knots, due to the exceedingly rough weather encountered. White caps five feet high were running in San Pablo Bay, and it was with difficulty that the boat was kept on its course without wetting the party.

Further along, Carquinez Straits were covered without difficulty, but on entering the Sacramento River it seemed that the waves were actually higher than they had been in the bay. Speed was reduced to negotiate these safely, and at 28 knots they were weathered in remarkable fashion. A short stop was made at Rio Vista for fuel, after which the journey was resumed. It had been expected to follow a course through Steamboat Slough, which is a short cut and very much smoother than the waters of the river proper, but in trying to pick this picturesque route, the wrong slough was taken, resulting in running 18 miles out of our way up a blind slough which ended in the back yard of a farm house. Due to the exceedingly small amount of water drawn by Pueblo, and good maneuvering ability, we had no trouble turning around, and within a short time located Steamboat Slough, which was exceedingly smooth and beautiful as compared to the main river. This was negotiated in

short order, due to our increasing the speed of the engine.

A stop for luncheon was made by the simple process of tying the boat up to some trees and going ashore. During this interval it was possible to observe the rapid flow of the river which was very high with a current of from five to six miles. While under way, the current was not so apparent. Shortly after resuming the trip, the Sacramento Boat Club was reached, where Pueblo was moored among the large fleet of yachts and speed boats that were on hand to enjoy the celebration.

After a day or two spent in taking in the sights around Sacramento which had been arranged to resemble as closely as possible the Days of '49, the return journey to Oakland was undertaken. A wager had been made with the driver of a large car that the boat would better his time between the two points, both starting at the same time. The first fifty miles were made in exactly one hour and ten minutes, aided by the river current which was very rapid. The motor speed was kept down to about 1,600 revolutions, although the engine could maintain over 1,800 if necessary. The conditions of the waters were entirely different on this trip as they were as smooth as the proverbial mill pond, the boat was making 38 to 40 knots right along without being forced. The arrival at the boat house in Oakland Estuary was made exactly three hours after the start. The entire distance of approximately 120 miles had been negotiated in exactly three hours. During this entire run both ways, the engine never faltered once. According to the entire party, the trip was voted a huge success and all agreed that beating the automobile by at least thirty minutes, thus winning the wager, was more pleasant than touring via automobile, much faster and without risk.

See-Gar, owned by Gar Wood of Detroit. This boat, with a 300 h.p. motor handled beautifully under all conditions



## Milwaukee Placed on Racing Map

The Season's First Events Attract Many Entries—A Day of Good Sport In Which Ten Events Show Some Keen Competition

Commodore Gar Wood of Detroit and Robert Ringling of Milwaukee. The latter is the owner of Viorling, which won the Free-for-All

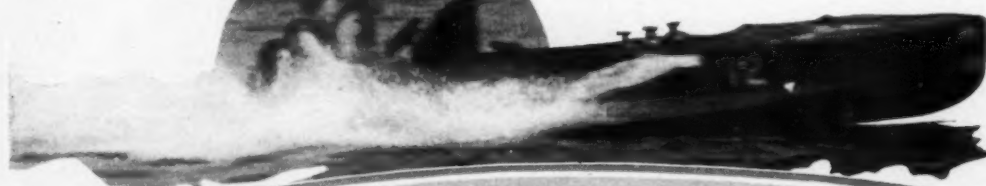


THE honor of holding the season's first racing event this year goes to Milwaukee. Not only was it 1922's initial regatta, but it was Milwaukee's first attempt at a big race meet. The affair was a success from every standpoint. Instead of the usual three days' races, in which the boats all compete in two or three heats, this event was all handled in one afternoon and the arrangement seemed to meet with the hearty approval of both spectators and racing men.

Ned Blakely, owner of Miss Rosita, did himself proud as Chairman of the Race Committee and in charge of all the regatta details generally. Racing boats and racing men from all parts of the country were present and were hospitably entertained by both the Milwaukee Yacht Club and the South Shore Yacht Club of the same city. The Great Lakes Boat Building Corporation of Milwaukee, kindly donated their plant and employees for taking care of the visiting boats.

Conditions at Milwaukee are admirable for a race meet. The course was laid out inside of the breakwater, close to shore where the boats could be seen during the entire race. The location is such that at least 100,000 spectators could be

Margaret III, owned by L. E. Selby



Photograph by J. Murdock



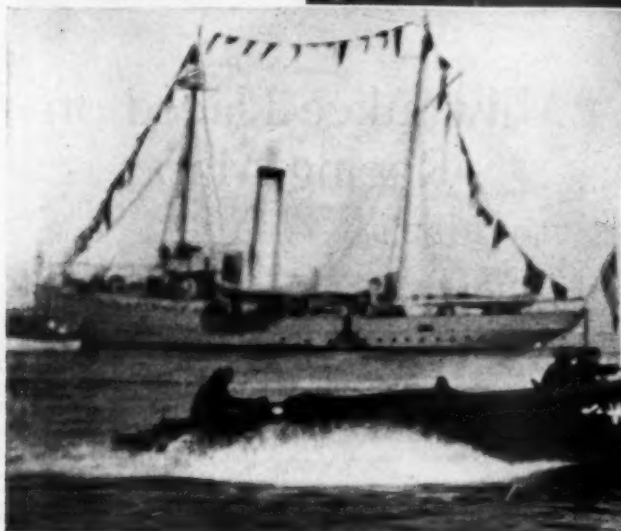
The start of the race for boats powered with outboard motors for the Evinrude trophy. Nineteen craft crossed the starting line in the race which was won by a boat powered with an Elto motor owned by Edwards and Pohl. The same make of motor also was used in the boats which finished second and third

taken care of on the hills adjoining the race course which formed a huge amphitheatre.

The events of the day opened with a race for boats powered with outboard motors for a trophy offered by the Evinrude Motor Company. Nineteen of these craft started in this event and the boat owned by Edwards and Pohl took first prize completing the two and a half mile course in 18 minutes, 18 seconds.



Mrs. Ethel Hanley of Muscatine, Iowa, in cockpit of See-Gar



Above: Violeing owned by Robert Ringling, the winner of the Free-for-All runabout class. This boat was built by the Great Lakes Boat Building Corporation of Milwaukee and has shown speeds of better than 50 m.p.h.

In the 150 cubic inch hydroplane class, Miss Peoria, owned by Dr. R. H. Daniels of Peoria, Illinois, took first money, completing the five miles in 9 minutes and 14 seconds. In the 300 cubic inch hydroplane race of five miles, Cadillac IV, owned by Rollen Travis of Peoria, completed the race in 9 minutes, 51 seconds with Miss Quincy, owned by C. E. Padgett, 5 seconds astern.

Janet-Virginia, owned by Walter Plummer, took first money in the 625 cubic inch runabout class. This boat required 9 minutes, 41 seconds to complete the ten-mile course. Arab VI, owned by Ralph Sidway, of Buffalo, was second.

In the 705 cubic inch hydroplane race of ten miles, Peggy II, owned by Fred Schram of Milwaukee, set up a new world's record for this class, com-



Cadillac IV, owned by Rollen Travis, of Peoria, winner of the 320 cubic inch hydroplane race



Peggy II, the new world's champion in the 705 cubic inch class. Peggy II is owned by Fred Schram and was designed by Walter Beauvais

pleting the race in 13 minutes and 5 seconds, which is at the rate of approximately 46 miles an hour. Peggy II was built by her owner from designs by Walter Beauvais of the Great Lakes Boat Building Corporation. She is an excellent craft in every way and gives promise of even better speed later on when there is more competition than there was at Milwaukee. Black Diamond, owned by Barrick and Weber, was

(Continued on page 80)

# Speak and You Shall Be Answered

A Real Horn for the Boat Which Will Bring  
Forth an Answer from Opposing Vessels

By Frank P. Huckins

IS there a skipper with soul so dead, who never to himself hath said, "My Kingdom for a horn that will make 'em sit up and take notice!" You have all of you cursed the toy toots on your craft that no steamer would answer. If you have cruised many seasons on the Maine Coast you can understand what inspired the building of this horn. It was built in an amateur's home shop with the aid of a fair set of hand tools and a nine-inch machine lathe. It can be duplicated by any yachtsman who has access to similar equipment, who is ordinarily handy with metal working tools and who has a large fund of patience. It was built in 1916, and without care or adjustment, has given five seasons' service so far.

The materials and parts cost about thirty dollars and the total time from patterns to the last coat of paint consumed 120 hours.

A toothed wheel, driven by an electric motor at constant speed running against a steel diaphragm, furnishes the sound. It emits a perfectly pure, low tone of about the pitch of a big towboat whistle. Steamers will answer it a mile or more to windward. In a fog they keep clear.

By reference to the drawing, the diaphragm is shown gripped between the main casting S and the horn yoke T. It is made of a piece of

circular saw steel  $3/64$  inches thick and 8 inches in diameter, and may be obtained from any good-natured saw manufacturer—without teeth—meaning the disc. In the hole intended for the saw arbor, a piece of mild steel is rivetted H, which in turn is tapped to take the  $5/16$ -18 case-hardened set screw F and the lock nut G. The screw which may be found in any hardware store must be buffed round and perfectly smooth on the point. The toothed wheel D is mounted on the bushing B, held in place by the nuts E; the bushing is reamed out to fit the motor shaft A and is pinned on with the taper pin C. These parts must be perfectly concentric. The toothed wheel was made from a  $2\frac{1}{2}$ -inch Brown and Sharp angular milling cutter by grinding out every other tooth, buffing the corners off the remaining teeth and running the whole thing backwards. The motor determines the design and size of the whole outfit. The one used was a Holtzer-Cabot 1/10 h.p. 12-volt, 1750 r.p.m.

Such a motor may be purchased from anyone of several makers, of the right voltage for your own battery.

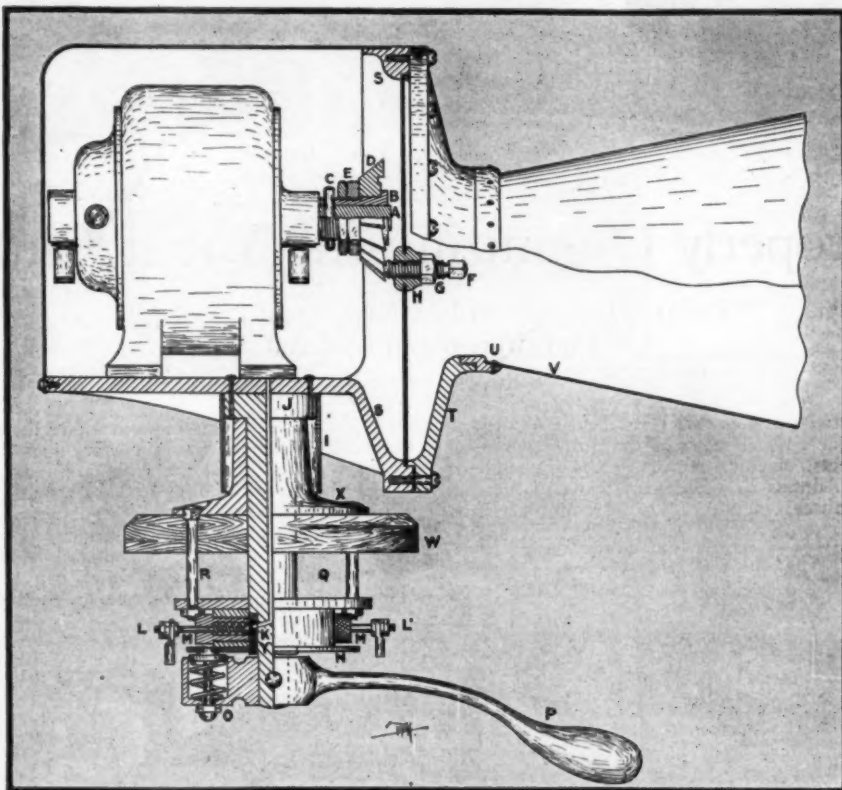
The motor is mounted on the platform of the main casting S and is protected from the weather by a sheet brass housing laid in white lead and tinned to the casting by small brass machine screws. The horn V may be about 18 inches in diameter at the mouth, 4 inches at the throat, is rivetted to the thimble U and threaded to the casting T to facilitate easy removal. The novice may escape further trials by mounting the horn rigidly facing forward, but to blow it in any direction and to carry it normally facing aft, to save the diaphragm from the spray, it must be mounted on a

pivot. The pivot shaft J is rivetted to the main casting S and extends down through the support bearing X, a block of wood W that may be shaped to the cabin roof, Q being the space left for the roof or awning.

The rest of the apparatus is a commutator by which current is carried to the motor without movable wires to catch and twist off. It consists in a casting N threaded out to receive two fibre bushings MM in which are two brushes LL turned out of brass rod, carrying lugs for the wires on the outer ends and having rounded heads on the inner ends,

forced against the commutator by the spiral springs as shown. The commutator K is a mean little thing to make and is harder to describe. It consists of two little half-circles of brass that can be sawed from a piece of brass tubing, insulated from one another and from the shaft by fibre bushings and held in place by a threaded collar Y. The pivot shaft J is bored out, wires are lead down from the motor, brought out through the faces of the commutator and soldered to them. All that is now needed is the handle P. It can be turned out of a piece of brass bar and then bent down to within reach of the skipper, but high enough to clear the bald spot on your friend's head. It is taper-pinned to the shaft and has a plunger O engaging with countersunk holes in the bottom of casting N. This keeps the whole outfit from sailing around in a seaway. The tube I is soldered on to exclude leakage from above.

(Continued on page 59)



Sectional diagram of the motor driven horn designed and built by F. P. Huckins for his own use and pleasure



*The Seaside Park Yacht Club,  
Seaside Park, New Jersey*

## Properly Organizing the Yacht Club

Points Which Should be Given Attention In the  
Constitution and By-Laws

*(Continued from May, June and July MOTOR BOATING)*

**I**N the earlier articles of this series on yacht club organization, we considered such items as the proper name for a club, its objects, officers, various kinds of members, election of officers, duties of officers, methods of electing members, the committees which every club should have and

their duties, club discipline and the rights and duties of the members, meetings, voting power, dues and fees and the payment thereof, and the resignation of members.

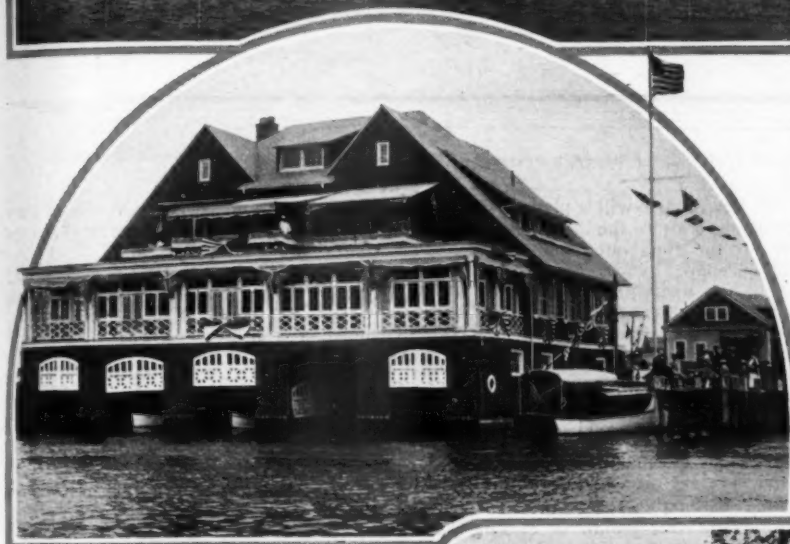
The club constitution or by-laws should provide the order of business to be taken up at regular meetings of the club. The particular order which is decided upon in framing the by-laws, is not so important, but provision should be made for considering all matters which can legally be brought before the meeting for attention and action. Generally the



*The Ocean City Yacht Club, Ocean City, New Jersey*



*The Sea Isle City Yacht Club*



*The Chelsea Yacht Club, Atlantic City, New Jersey*

roll call of members is taken up first which is followed by the reading of the minutes of the previous meeting. Then the reports of officers is given which is followed by the reports of committees. The next order of business generally permits the taking up of unfinished business and then new business. The last order of business is the election of officers if there are any to be voted for.

The by-laws should contain an article descriptive of the club flag or burgee. Quite necessarily, the design of the club

burgee will be different for each particular club. Care should be taken to select a design which is as simple and plain as possible. The club flag should always be triangular in shape, never swallow-tail, or rectangular. There should never be a name spelled out on the club flag and the use of letters is also not considered good form.

The flag officers' flags should next be described: the flags of the Commodore, Vice-Commodore, and Rear Commodore should be rectangular in shape. The color of the Commodore's flag should be blue, that of the Vice-Commodore, red, and white



*The Philadelphia Yacht Club at Essington, Pa.*

for the Rear Commodore. Many clubs adopt the standard flags of the officers of the New York Yacht Club. The Commodore's flag of the New York Yacht Club is described as follows:

"A rectangular flag with a foul anchor, encircled by thirteen, five-pointed stars in white (Continued on page 84)



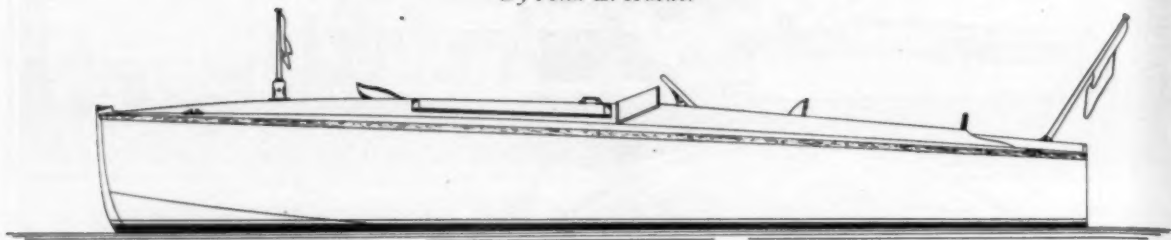
*The Corinthian Yacht Club of Cape May, New Jersey*

# Flapper, a Sporty 18-Foot Runabout

An Attractive Little Design With Plenty of Speed  
and Arranged for Easy Building by the Amateur

Designed Exclusively for MoToR BoatinG

By John L. Hacker



The outboard profile for Flapper, an attractive 18-foot runabout

**F**OR a little runabout of about 18-feet length one will have to go a long way to find something superior to the design which we publish this month for the runabout Flapper. This little design has been carefully prepared by Mr. Hacker following many requests for a boat of about this size. Its main features follow other successful boats of about this size which he has designed and built, and we can promise that if the plans are carefully followed a boat will result which will be a success in every way. It is designed for the Red Wing, model D, four cylinder motor. With this a speed up to about 14 miles per hour can be attained and for those who desire greater speeds the installation of a more powerful motor will produce satisfactory results. Should a larger motor be desired it is advisable to select one whose total weight will not exceed 450 pounds. It is designed to carry five passengers in comfort and will prove to be very seaworthy and able when one considers its small size.

In a boat of this type the weight of the motor is an important consideration. If too much weight is placed forward the boat will not plane properly and fall short of the expected speed. The designer has computed the speed and the planing angle very carefully and does not care to have his calculations upset when some amateur builder attempts to improve on his design by extensive rearrangements. The lesson to be learned from this is, that the naval architect has good and sufficient reasons for

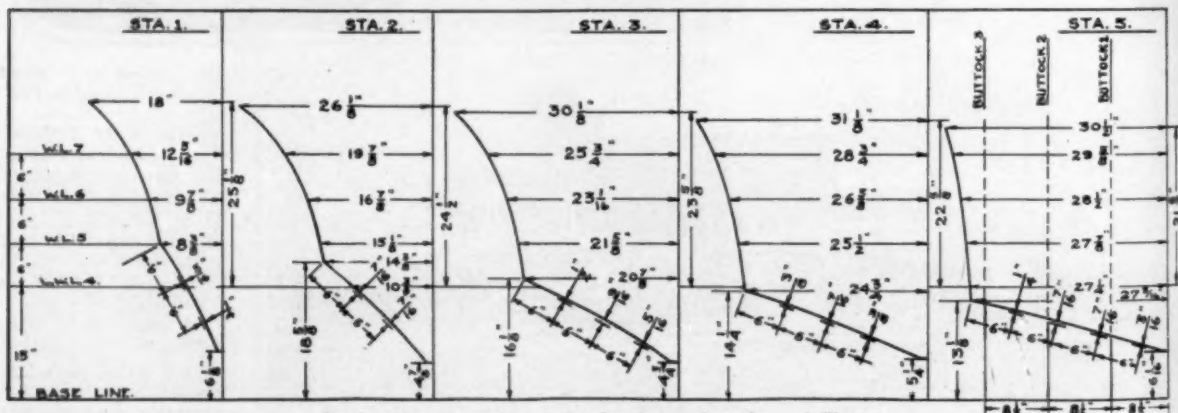
placing the motor and other weights in the boat where they are. Any changes will result in an unsatisfactory failure and should not be attempted.

The beginning of a construction of this boat will naturally be the construction of the frames for each station, using the information given on the drawings for this purpose. These are then assembled and secured to the keel member by the prescribed number of bolts and securely stayed in

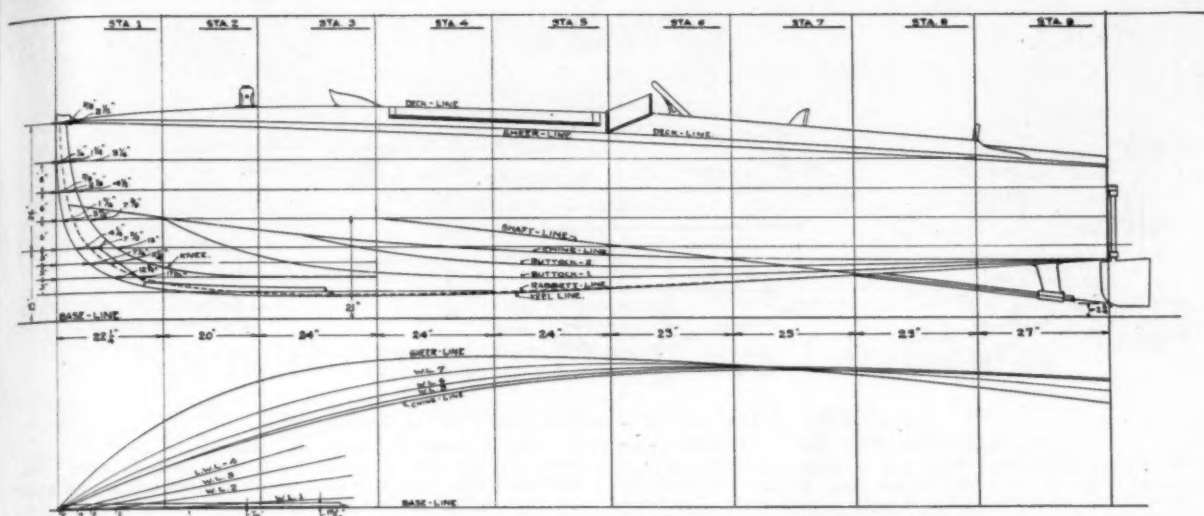
position so that they will remain in a truly vertical condition. The dimensions given on the mold drawing follow the usual practice and are to the outsides of planking. The frames will then be notched out for the seam battens and chine piece, after which the planking may be applied in the customary way. It should be so fitted that the joint between adjacent planks will come on the center of the seam battens. The transom is placed in position on the keel before the planking is begun and can be completed before assembly.

The lines of the battens should be absolutely fair so that if planking when applied will fall naturally into its proper place. The fastenings for the frames and planking should be as called for in the various portions of the specifications. Such items as knees and supports for deck and bulkheads should be carefully fitted and secured in place. After the hull has reached this preliminary condition of completion some of the finishing work may be begun and deck beams, hatch coamings, cockpit trim and

A little boat which will without question prove to be one of the most popular in the present series being designed for MoToR BoatinG by John L. Hacker is published this month in complete detail. Designs which have been published previously in this series include, Marybelle, a 14-foot runabout; Gladys, a 20-foot runabout; Margie, a 31-foot cruiser; Miss Victory, a high speed hydroplane; Miss Mississippi, a smaller hydroplane; Miss A.P.B.A., a 26-foot runabout and Lorraine, a fast 16-foot runabout.



Sections for the molds of the five forward stations of Flapper



other incidentals installed. Among the last items to be installed will be the motor and other portions of the mechanism. This should be carefully attended to as upon the proper performance of the motor will depend a good deal of the success of the boat. There remains then only the painting, varnishing and trimming of the boat before it will be ready for its trial. Many portions should be painted during the assembly of the hull, as they will be inaccessible after the assembly is completed. Such equipment as is required by law for a boat of this size should be procured and carried at all times. Following carefully the specifications which are given will produce a most satisfactory and successful craft in every respect.

## General Specifications

**Keel:** This will be a piece of  $1\frac{3}{4}$  by  $3\frac{3}{4}$ -inch white oak or yellow pine. It should preferably be in a single length. It is to be properly beveled and rabbeted to suit the planking. A hole  $\frac{1}{4}$ -inch larger than the shaft size to be used should be bored through properly aligned to suit the motor installed.

Stem: This is to be made from a hackmatack knee of 1½-inch stock, properly shaped, beveled, and rabbeted to suit planking. If hackmatack is not procurable use white oak with a knee of the same material. Fasten this knee with three ¾-inch bolts to the stem as well as to the keel and finish the rabbeting.

**Transom:** If possible a single piece of  $\frac{3}{4}$ -inch mahogany should be selected for the transom. It is to have a  $1\frac{1}{4}$ -inch stern post of oak and to be reinforced with  $\frac{7}{8}$ -inch oak cleats from keel to sides, and from bottom to top on the sides, with a top member for the deck crown. This is to be approximately  $2\frac{1}{4}$  inches in width. Fasten to the keel with a 1-inch knee on each side, all to be screw fastened and transom to be wood plugged.

Frames: These are to be shaped from hackmatack knees if possible. To be of  $\frac{3}{4}$ -inch stock and tied with an oak floor of such sizes as are shown on the plans. Floor supporting engine stringers are to extend at least 2 inches beyond the stringers. Frames are to be rivet fastened to the floors with No. 8 copper rivets. If hackmatack is not used make a side and bottom member and halve same at the chine, or fasten one to the other. They are then to be fastened to the floors in a similar manner. The bottom member beginning at Station No. 6 may be in a single piece, in which case shape down to  $\frac{3}{4}$ -inch thickness outside of stringer.

These are to be fastened in a similar manner to the others or with 3/16-inch galvanized bolts. A tie is to be placed 2 inches below the sheer height, which shall remain until the planking is in place. When the frame is completed through bolt to the keel with 13/16-inch galvanized bolt to Station No. 4 and two 5/16-inch bolts through to the rabbet at each station further aft.

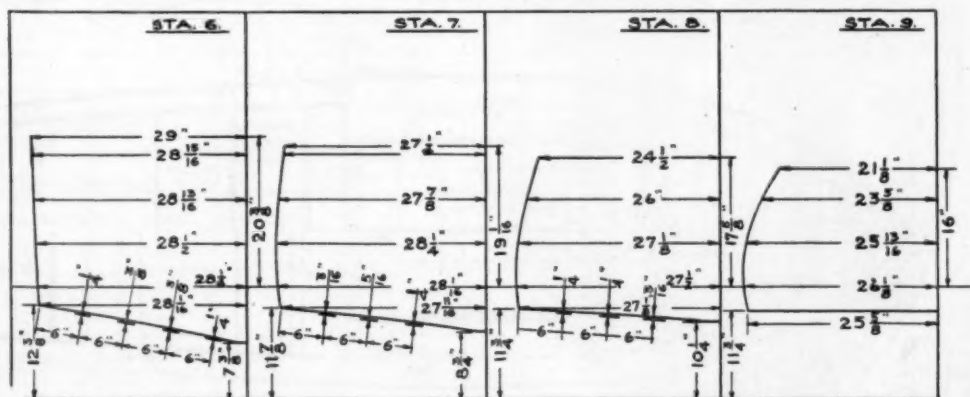
**Chimes:** These are to be shaped from 1 3/4 by 2-inch yellow pine, and in a single length. They should be slightly tapered towards the stem. They are to be properly beveled and rabbeted to suit the planking. When completed they are to be let into frames and securely rivet fastened with 1/4-inch stock. They are to be reinforced at the stem with an oak breast hook and with a substantial knee on each side to the transom frame.

**Engine Stringers and Bed:** These stringers are to be shaped from 1½-inch spruce. They are to be notched over frames and floors and through bolted to the same with 5/16-inch bolts. Tops of stringers are to form the floor level. They are to be reinforced with a sway block on each side in the vicinity of the engine bed. The engine bed is to be of 2-inch white ash or oak. It is to be properly aligned to suit the motor and to be let in over floors and through bolted to the stringers with ¾-inch bolts and drift bolted into the floors.

Clamps and Plank-Battens: Clamps are to be of  $\frac{5}{8}$ -inch by 2-inch yellow pine. They are to be in a single length let into frames and securely screw fastened. They should be reinforced with an oak breast at the stem and a knee on each side of the transom.

Battens: At the sides will be 7/16 by 1½ inches. On the bottom 9/16 by 1¾ inches. They are to be of clear yellow pine, properly aligned, notched into frames and securely screw fastened. They should be spaced so that the seam will come on the center of the battens and the battens will be spaced equally on both sides. On the bottom the outside batten may begin on the chine.

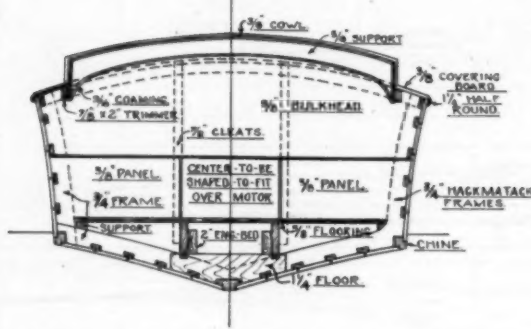
**Deck Beams and Framing:** Deck beams will be of white wood and of such dimensions as indicated on the drawings. They are to be sawn to a proper radius and securely screw fastened to



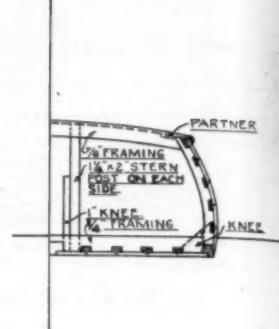
DETAIL  
STA. NO. 3



DETAIL STA. NO. 5  
FORWARD VIEW



DETAIL  
TRANSOM



Construction sections in detail at stations 3 and 5 and at the transom

the frames and clamp. They will be supported with a knee to extend down to the second batten from the top. Also on the main frames aft to the bulkhead using  $\frac{3}{4}$ -inch stock. The beams on stations 3 and 5 are to be  $\frac{3}{4}$  by  $2\frac{1}{4}$  inches. Hatch trimmer and beams are to be of  $\frac{3}{4}$  by  $3\frac{1}{4}$ -inch stock. Cockpit trimmer to be  $\frac{3}{4}$  by 2 inches, all of white wood and screw fastened.

**Bulkhead:** A water-tight bulkhead may be placed on station 2 or 3. In this case make the frame flush. Cover with  $\frac{3}{8}$ -inch Haskellite or two ply of white pine  $\frac{3}{16}$  inches thick with canvas laid in marine glue between the plys. It should be closely copper riveted or tacked.

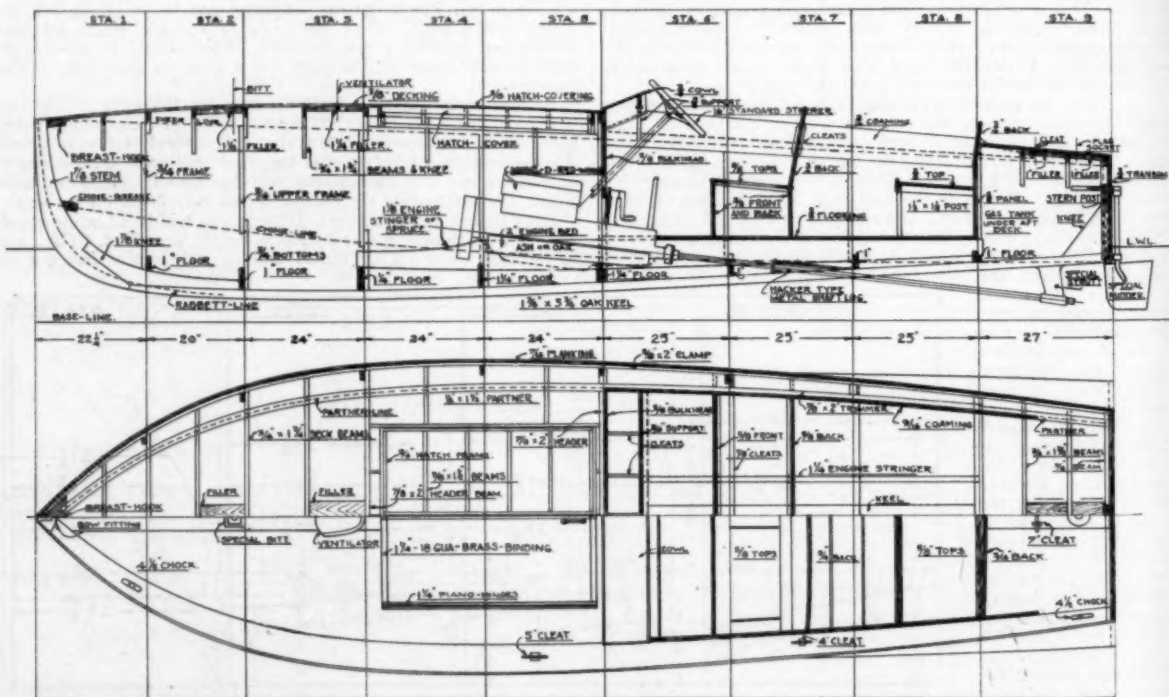
**Frame in General:** The entire frame to be neatly trimmed and faired to take the planking and decking. All fastenings are to be of bronze, copper or galvanized iron. If galvanized fastenings are to be exposed, counterbore and wood plug the holes, first coating the fastenings with red lead. All joints before making final should be painted with either red or white lead paint.

**Planking:** Planking is to be  $\frac{7}{16}$ -inch thick on the sides and  $\frac{1}{2}$ -inch on the bottom. If natural finish is desired make sides of mahogany, also the two first ends at the stem, so that mahogany will show to the waterline. The balance of planking may be of white cedar or pine. All planking is to be in as long lengths as practical and all butts are to be made on oak butt blocks, and not less than 8 inches in length and to have not less than 6 fastenings on each side. Spile the planking so that the seams will meet on the centers of battens. The side planking is to have flush seams and to be blind caulked by making a groove in each plank in the

center and inserting a strand of soft seine twine in same. The chine seam and all bottom seam to allow about a  $\frac{3}{32}$ -inch seam and to be lightly caulked with spun cotton run in with a roller. All planking is to be screw fastened to the frames, using 1-inch No. 8 screws on the sides and  $\frac{1}{4}$ -inch No. 9 screws on the bottom. It is to be copper riveted over burrs to the battens, using  $\frac{1}{4}$ -inch copper wire nails. Copper clout nails may be used and clinched on the inside. Use 1-inch No. 8 screws into stem, sheer, chines, and keel. All holes to be counterbored with Forstner plug bit and wood plugged, sizing with white shellac.

**Decking:** Covering boards will be of mahogany and to be spiled as per plan. The center plank will also be of mahogany  $\frac{1}{2}$ -inch thick. Balance of decking will be of  $\frac{3}{8}$ -inch mahogany strips  $2\frac{1}{4}$  inches in width. Covering boards to be  $\frac{3}{8}$ -inch thick. These are to be fastened to beams and partner with screws. Balance of the decking except the center plank is to be fastened with  $\frac{1}{2}$ -inch galvanized nails. Ends of strips to be screw fastened into partner. Allow a uniform seam of about  $\frac{3}{32}$ -inch to take the seam composition. Material for hatches to be of the same dimensions and stock. They will have a frame of white wood of such dimensions as indicated and be screw fastened. All holes are to be counterbored and wood plugged. The partner is to be let into the beams and its center is to form the covering board line. There will be a  $\frac{1}{2}$  by  $\frac{1}{2}$ -inch strip fastened to the beam on each end of the hatch to support the same and to be screw fastened.

Cockpit: Coaming in the cockpit is to be of  $\frac{9}{16}$ -inch mahog-  
(Continued on page 84)



Inboard construction profile as well as a half beam and half arrangement plan



*Mary R and Delphine starting from the Columbia Yacht Club on the return leg of the Atlantic City-New York round trip race. The former won in the class for cruisers over 60 feet and Delphine took the prize for the fastest time in the class under 60 feet*

## Spendthrift II is Deep Sea Champion

The Race from Atlantic City to New York and Return and Vice Versa for the James Craig Trophy Brings Out Six Starters

By Charles F. Chapman



*The crew of Spendthrift II, the winning boat. Left to right: Dr. I. A. Marsland, Lewis Preston, W. R. Halsey, the owner of Spendthrift II, and T. Lambaise*

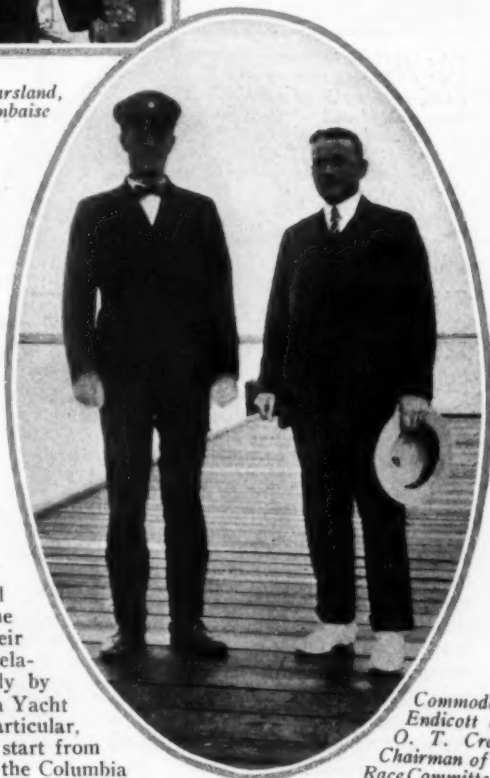
**S**PENDTHRIFT II is the undisputed champion of her class, that is, as far as deep sea racing is concerned. By winning the 196 nautical miles round trip race between the cities of New York and Atlantic City, the performance of Spendthrift II again demonstrated the practicability of a cruiser as small as 45 feet in length for off shore work. The same points were demonstrated by other craft in the race, Kodak, in particular, as this little 32-footer negotiated the ocean run as prettily and as successfully as in any race which was competed for the last several years.

The race was for the James Craig Trophy, a solid silver medal presented by the National Association of Engine and Boat Manufacturers, and trophies offered by the Atlantic City Yacht Club and the Columbia Yacht Club of New York City. The James Craig Trophy is the perpetual one recently presented by James Craig to the National Association of Engine and Boat Manufacturers and turned over by them to the American Power-Boat Association for annual competition between cruisers in a sea race. The trophy was originally won by Mr. Craig in his 60-foot cruiser Ailsa Craig in a race from New York to Bermuda, many years ago.

Six boats started in the Atlantic City-New York and return race. The number of starters was not as large as had been anticipated and was not in proportion to the prizes and trophies offered. However, the ditch sailors evidently feared the ocean run and declined to enter their boats, preferring the calmer waters of Long Island Sound and the Delaware River on which to win their glory. The race was handled jointly by the Race Committees of the Atlantic City Yacht Club and the Columbia Yacht Club. The conditions governing the race were somewhat new in one particular, that is, they permitted the owners to choose whether their craft should start from Atlantic City and race to New York and return or to make a start from the Columbia

Yacht Club and race to Atlantic City and back to New York.

The race was a daylight affair, that is, the boats remained over night at the opposite end from where the start was made and returned on the following day. This arrangement worked out very well and seemed to appeal to the owners and crews. Both the Columbia Yacht Club and the Atlantic City Yacht Club arranged for the entertainment of the visiting crews while they were at their respective anchorages. This feature of the program made the race a very popular one



*Commodore Endicott and O. T. Crane, Chairman of the Race Committee of the Atlantic City Yacht Club*

and bids fair to make the entry list much larger in subsequent years.

Of the six boats which started, three from Atlantic City and three from New York, all finished with one exception. Mary, of the Columbia Yacht Club, became lost in the fog in Gravesend Bay, mistaking this body of water for the Ambrose Channel and not being able to find her way out of the Bay due to faulty compass, withdrew.

From a standpoint of testing out the racing qualities and qualifications of the competing cruisers the weather and sea conditions could not have been more ideal. The first day's run was made through a blanket of fog which so thickly surrounded the craft that



The crew of Kodak. Left to right: E. C. Humphrey, G. S. Crilly, Richard Haslinger, G. Dangel



The Atlantic City Yacht Club, where the race started and finished



The pilot boat which was sent out to take the racers through the Atlantic City inlet

navigation was only possible by means of dead reckoning. In addition to the fog, a fairly brisk wind blew from the south and southeast, picking up a sea along the Jersey Coast, which made going decidedly lumpy. However, all the five boats which went through reported that the race was a thriller and that they were able to navigate successfully even though nothing was seen other than fog and water and an occasional fish net for distances as great as 75 or 80 miles.

Of the boats which started from New York two are well known, hav-

ing competed in past events. Spendthrift II owned by Messrs. Halsey and Van Amringe of Mamaroneck, New York, and flying the colors of the Orienta Yacht Club, is the Mower designed cruiser which won first place in last year's class A, Block Island Race. She is a 45-footer powered with a Van Blerck motor. Aboard Spendthrift II in the race were: W. R. Halsey, Dr. I. A. Marsland, Lewis Preston, T. Lambaise and C. F. Chapman.

Kodak owned by R. J. Haslinger and representing the New York Athletic Club was the winner last year in Class B of the Block Island Race. Kodak which is powered with a Sterling motor, has competed in all racing events in the vicinity of New York City for several years past, seems to be making a better record each year. The trip for this boat which is only 32 feet in length was by no means an easy one and especially on account of the bad weather which was encountered, the performance is a

(Continued on page 90)



Kodak, the smallest boat in the race and the craft which finished in second place

# Questions and Answers on Lesson No. 5

Equipment Required by Law—Government Publications—MoToR Boatin'G's  
Correspondence Course in Piloting, Seamanship and Small Boat Handling

1. Q: What length motor boats fall into Class 1?  
A: Under 26 ft.
2. Q: What length boats fall in Class 2?  
A: 26 to 40 ft.
3. Q: What length boats fall in Class 3?  
A: 40 to 65 ft.
4. Q: What Government equipment is to be carried on the boats of Class 1?  
A: Combination red and green lantern or bow and colored side lights, whistle capable of producing prolonged blast for at least two seconds, one life preserver for each person on board. Fire extinguisher capable of extinguishing gasoline fires, two copies of the Pilot Rules, at anchor a white light only, less than 20 ft. above hull visible along horizon for at least one mile.
5. Q: What additional Government equipment is required on boats of Class 2?  
A: White forward light lens at least 19 square inches, green starboard light, red port light lens at least 16 square inches, screens at least 18 inches long, lens fresnel or fluted glass. Fog horn and bell.
6. Q: In what respects does the equipment required on boats of Class 3 differ from that on Class No. 2?  
A: White forward light with lens at least 31 square inches, green starboard light, red port light, lens at least 25 square inches screens at least 24 inches long, lenses fresnel or fluted glass. Fog bell must be at least 8 inches across mouth.
7. Q: What additional or different equipment must be carried on motor boats of not more than 65 feet in length carrying passengers for hire?  
A: Regulation life preservers approved by the steamboat inspection department.
8. Q: To whom does one desiring to obtain a license to operate a boat carrying passengers for hire make application?  
A: Local board of steamboat inspectors.
9. Q: What credentials, letters or statement of qualifications must the applicant (Question No. 8) present?  
A: Three letters from reputable citizens advising of acquaintance with and necessary reputation of applicant.
10. Q: Is an examination required to obtain a license to operate a motor boat carrying passengers for hire?  
A: No.
11. Q: Is a test for color blindness required?  
A: No.
12. Q: Will an ordinary mouth whistle pass Government inspection as the whistle required on a motor boat?  
A: Yes, if can be heard specified distance.
13. Q: Will the various forms of electric horns pass Government requirements for the whistle specified for motor boats?  
A: Yes, if can be heard specified distance.
14. Q: Will a buoyant cushion pass as a life preserver on motor boats not carrying passengers for hire?  
A: Yes.
15. Q: Will a buoyant cushion pass as a life preserver on boats carrying passengers for hire?  
A: No.
16. Q: What may be substituted for life preservers, buoyant cushions, etc., on motor boats not carrying passengers for hire?  
A: Floats of seasoned wood not exceeding white pine in weight and measuring at least 4" x 14" x 2".
17. Q: Does a dinghy pass as life-saving equipment?  
A: No.
18. Q: Will fog horns pass Government requirements for the whistle specified for motor boats?  
A: No.
19. Q: Are motor boats over 15 tons, carrying passengers for hire, subject to inspection?  
A: Yes.
20. Q: Are motor boats under 15 tons, carrying passengers for hire, subject to inspection?  
A: No, not if under 65 ft. in length.
21. Q: What Government officials have charge of the inspection of those motor boats carrying passengers for hire which are subject to inspection?  
A: Local steamboat inspectors have charge of inspection of hull and machinery.
22. Q: Are motor boats or motor yachts of any size, not carrying passengers for hire, subject to inspection?  
A: No.
23. Q: Motor boats, of what size (not carrying passengers for hire) must be documented?  
A: 16 tons and over or over 65 ft. in length.
24. Q: By whom are motor boats documented?  
A: Collector of Customs.
25. Q: Must the boat's name and hailing port be painted or otherwise attached to the stern of a documented boat?  
A: Yes.
26. Q: What Government officials or employees are authorized to make inspection of motor boats to see if all equipment is on board?  
A: Inspectors of the Bureau of Navigation, Department of Commerce or customs officials or member of the coast guard.
27. Q: Is a motor boat at anchor required to have Government equipment on board?  
A: No.
28. Q: Must a motor boat have been seen under way or known to have been under way by an inspector before he can board that boat for the purpose of inspecting the equipment?  
A: Yes.
29. Q: What flags must be flown by a boat authorized to make the Government inspection for equipment?  
A: Bureau of Navigation or customs or coast guard, depending upon official.
30. Q: Does the Government require that the owner or operator of a motor boat of any size, not carrying passengers for hire, know anything about his boat, its operation, navigation, etc.?  
A: No.
31. Q: Does the Government require any of the following equipment to be carried on board: an anchor, a compass, an anchor line, a pump, a dinghy, provisions, etc.?  
A: No.
32. Q: Will a pail of sand answer as a fire extinguisher.  
A: Yes.
33. Q: From whom may copies of the Pilot Rules be obtained?  
A: Customs House or any of the agencies handling Government publications.
34. Q: Are licensed officers required on yachts or pleasure motor boats (not carrying passengers for hire) of any size?  
A: No.
35. Q: What size motor boat is required to be numbered?  
A: All undocumented motor boats except boats of less than 16 ft. in length temporarily equipped with an outboard motor and except Government vessels.
36. Q: By whom are motor boats numbered?  
A: Collector of Customs.
37. Q: What types or sizes of motor boats are not required to be numbered?  
A: Government vessels, documented motor boats and motor boats of less than 16 ft. in length temporarily equipped with an outboard motor.
38. Q: To whom is the annual war tax on the use of motor boats paid?  
A: Collector of Internal Revenue of owner's home district.
39. Q: Who gives the examination for licensed officers required to be carried on documented boats other than yachts and pleasure motor boats?  
A: Local board of steamboat inspectors, see table 1B page 94 July, 1921, MoToR BOATING.
40. Q: What Government publications should be carried on any motor boat?  
A: Pilot rules, tide table, buoy lists, light lists, notice to mariners, coast pilot and chart catalog.
41. Q: From whom do you obtain the above publications?  
A: Custom Houses, Division of publications, Dept. of Commerce, Washington, D.C. and Government agencies, see list of agencies page 102 July 1921 MoToR BOATING.
42. Q: If you wish to sail from Sandy Hook to Philadelphia how would you know what charts you required, their price, and from whom to purchase them?  
A: Refer to Government catalog of charts, etc.
43. Q: What charts (state numbers) would be required if you wished to sail from Sandy Hook to Philadelphia?  
A: 1215, 1216, 1217, 1218, 294, 295.
44. Q: What buoys would you pass sailing from Portland, Maine, to Yarmouth? (This information may be obtained from the Buoy List of the First Lighthouse district.)

(Continued on page 96)

# Middle Latitude Sailing

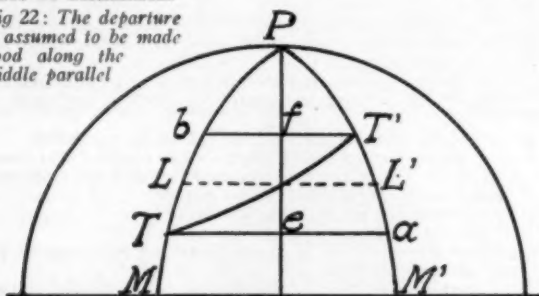
The Method of Making the Conversion Between Departure and Difference of Longitude, When the Vessel Sails an Oblique Course—The Sixth Lesson of a Correspondence Course Which Will Be a Complete Treatise on the Subject of Dead Reckoning

By Dean Potter

Chairman, Committee on Instruction, United States Power Squadrons, Inc.

IN the previous lesson, we explained the method of making the conversion between departure and difference of longitude, when the vessel sailed along a parallel, and thus made no change in her latitude. But where the vessel sails an oblique course, that is, a course lying between the cardinal points, she not only makes departure, and changes her longitude, but changes her latitude as well. In such case the departure is not made either along the parallel left or the parallel arrived at. Referring to Fig. 22, it will be apparent that the departure  $fT'$  and  $Te$  are less than  $Ta$  and more than  $bT'$ , in fact approximately equaling the departure  $LL'$ , half way between  $T$  and  $b$ . Should we divide the total difference of longitude  $MM'$  into a great number of equal parts, as  $MPm'$ ,  $m'Pm$ , etc., and separately consider the small triangles formed by the rhumb line  $TT'$  crossing the successive meridians, as in Fig. 23, each small triangle with its own departure, we would have approximately as many departures made good on one side of the middle parallel as on the other. The departures on the opposite sides of the middle parallel would be of unequal length, those on the equatorial side being longer and the others shorter; but the whole so balancing and equalizing that, for moderate distances, such as a day's run, it might be assumed that the sum of all the small departures would equal the single departure along the middle parallel, that is, the parallel midway between the parallel of the place left and the parallel of the place of destination.

Fig 22: The departure is assumed to be made good along the middle parallel



The method of conversion between departure and difference of longitude, made upon the assumption that the entire departure is made along the middle parallel, is called *Middle Latitude Sailing*. The middle latitude having been found, the solution is identical with that of parallel sailing, and the formulae are the same, except that the middle latitude is substituted for the single latitude therein employed. Thus the formulae become:

$$\text{Dep} = D \text{ Lo} \cos ML$$

$$D \text{ Lo} = \text{Dep} \sec ML,$$

ML representing the middle or mean latitude, between the latitude left and the latitude of destination.

The cases arising in middle latitude sailing are of two classes:

1. With the C and Dist. given, to find the DL and D Lo made good; which, applied to the Lat and Lo left, give the Lat and Lo in;

2. Given the Lat and Lo of two places, to find the C and Dist between them.

In the first case, the DL and Dep are found by plane sailing; and then the Dep is converted into D Lo by Mid-Lat sailing.

In the second case, the D Lo is turned into Dep by Mid-Lat sailing; and then, with the Dep and DL, the C and Dist are found by plane sailing.

Example 41: A vessel in Lat  $21^{\circ}16' N$ , Long  $49^{\circ}49' W$ , sails C  $198^{\circ}$ , Dist 321 miles. Required Lat and Long arrived at.

Note: The first step in this problem is to convert the C and Dist into DL and Dep, which may be done by Traverse Table or computation. This is an ordinary plane sailing problem. Using the Traverse Table, we have:

Table 2, p. 567, C  $198^{\circ}$  (or S  $18^{\circ} W$ ), with Dist 321, find DL 305.3 ( $= 5^{\circ}05'.3 S$ ) Dep. 99.2 W.

Lat left	$21^{\circ}16' N$	Lat left	$21^{\circ}16' N$
DL	$5^{\circ}05'.3 S$	Lat in	$16^{\circ}10.7' N$
Lat in	$16^{\circ}10.7' N$	Sum	$2 / 37^{\circ}26.7$
		Mid. Lat	$18^{\circ}43.4$

To find the D Lo. By computation:

Formula,  $D \text{ Lo} = \text{Dep} \sec M L$

Dep 99.2 log. 1.99651

sec ML  $18^{\circ}43'$  log. 10.02360

D Lo 104.7 log. 2.02011

D Lo =  $1^{\circ}44'.7 W$

Lo left  $49^{\circ}49' W$

D Lo  $1^{\circ}44'.7 W$

Lo in  $51^{\circ}33'.7 W$

By inspection:

Rule: Go into Table 2 with the Mid. Lat. as a course. Opposite the Dep. in the Lat. column, find the D Lo. in the Dist. column.

Table 2, p. 566, M L  $18^{\circ}$ , opposite 98.9 in Lat. column, find D Lo. 104 in Dist. column. By interpolation, we could make the D Lo. 104.3.

p. 568, M L  $19^{\circ}$ , opposite 99.3 in Lat. column, find D Lo 105 in Dist. column.

For M L  $18^{\circ}43'$ , make D Lo  $104.7 = 1^{\circ}44'.7$ .

Example 42: What is C and Dist. from Lat.  $40^{\circ}41' N$ , Long.  $71^{\circ}38' W$  to Lat.  $36^{\circ}16' N$ , Long.  $68^{\circ}29' W$ .

Note: The first step in this problem is to find the D L and D Lo in terms of minutes.

Lat left	$40^{\circ}41' N$	Lo left	$71^{\circ}38' W$
Lat in	$36^{\circ}16' N$	Lo in	$68^{\circ}29' W$
D L	$4^{\circ}25' = 265' S$	D Lo	$3^{\circ}09' E = 189'$
Sum of lats	$2 / 76^{\circ}57'$		
M L	$38^{\circ}29'$		

Note: If desired the lats may be set down a second time separately, and then added. The above form is briefer and should not be found confusing.

The D Lo must next be turned into Dep.

Formula,  $\text{Dep} = D \text{ Lo} \cos M L$

D Lo 189 log. 2.27646

cos M L  $38^{\circ}29'$  log. 9.89364

Dep. 147.9 log. 2.17010

Having the D L and Dep. it now becomes a plane sailing problem to find C and Dist.

Formula,  $\tan C = \frac{D L}{\text{Dep}}$  Formula,  $\text{Dist} = \frac{\text{Dep}}{\sin C}$

Dep	147.9	log.	2.17010	Dep.	147.9	log.	2.17010
D L	265	log.	2.42325	sin C	$29^{\circ}10'$	log.	9.68784
$\tan C$	$29^{\circ}10'$	log.	9.74685	Dist	303.6	log.	2.48226
C = S	$29^{\circ} E$ , or $151^{\circ}$						

By inspection:

Table 2, p. 589, Dep. 146.9, Lat. 265, gives Dist. 303 and C  $151^{\circ}$ .

The assumption of middle latitude sailing, that the conversion may be made as if the whole distance were sailed

on the middle parallel, is not strictly correct. It is sufficiently accurate for moderate distances, such as involved in a day's run; and is more nearly accurate near the equator, and with large angle courses, than in high latitudes or with courses of small angle. Where the distances are great, it is preferable to employ Mercator sailing, or else to apply to the middle latitude a correction given in the table at p. 77 of Bowditch, to obtain the true latitude of conversion. Dr. Merrifield gives the following rules as a guide in choosing between the middle latitude and Mercator methods. He writes:

"Middle latitude sailing should not be used:

"(a) In high latitudes: because the cosines of all angles change very quickly when the angles are large; and hence the cosine of the mean latitude will not be the mean of the cosines of the two latitudes.

"(b) When the difference of latitude is great: because the greater the difference of latitude, the farther from the middle latitude will the parallel representing the departure be found.

"(c) When the two places under consideration are on different sides of the equator: because the middle latitude must then be situated much nearer to the equator than the parallel representing the departure would be.

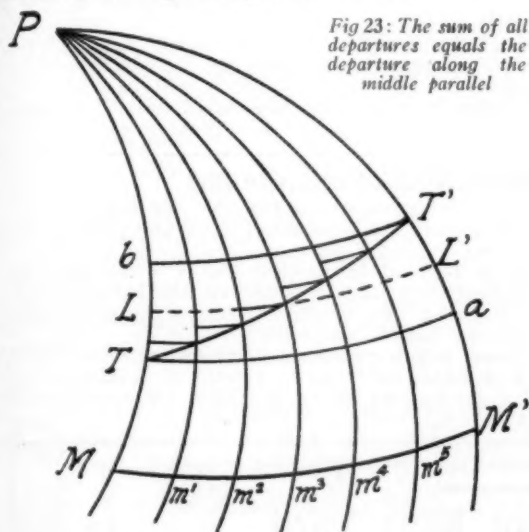


Fig 23: The sum of all departures equals the departure along the middle parallel

"Hence, middle-latitude sailing should only be used when sailing near the equator, when the course is great (more than 45°), when the distance is comparatively small, and when the two places are on the same side of the equator. In all other cases Mercator's sailing should be used."

But let us not take alarm at these restrictions as to the utility of the middle latitude method. In all latitudes where we are ever likely to be, and for all distances which will probably enter our computation, the method may be used with confidence. Its inaccuracies will be trifling indeed, in comparison with the inevitable errors of course and distance to be expected even from the best compass and patent log.

While theoretically the meridians converge from the equator to the poles, yet as a practical matter they are nearly parallel throughout a belt several degrees wide on each side of the equator. Thus in sailings near the equator, and in short sailings crossing the equator, the departure may be assumed to equal the difference of longitude, just as if the sailing were on the equator itself; and the problem may be treated as one of plane sailing. But this is permissible only for short distances, such as an ordinary day's run; and some give the rule that the method should not be employed more than 5° away from the equator on either side.

It is inadvisable to use the middle latitude method in crossing the equator. Where the track crosses the equator, and the distance is so small that the departure equals the difference of longitude, the problem is one of plane sailing, as above noted. But where the distance is so great that the convergence of the meridians become sensible, then the portion of the track on each side of the equator should be

treated separately. This involves a somewhat tedious computation, in striking contrast with the simplicity of the Mercator method. That the method may be understood, we shall give typical examples, remarking, however, that the method is not recommended.

Example 43: A ship in Lat. 9°19' N, Long. 44°21' W, sails S 43° E, 868 miles. Find Lat. and Long. in by Mid. Lat. Sailing.

From Lat. left, 9°19' N, to equator, is 9°19' or 559'. Dep = D L tan C

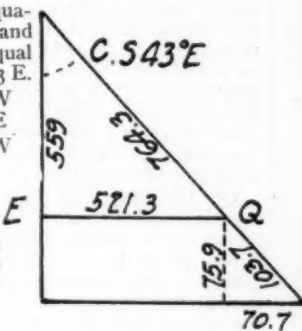
D L (to equator) 559	log. 2.74741
tan C 43°	log. 9.96966
Dep 521.3	log. 2.71707

Since this Dep is along the equator, a mile equals a minute; and the D Lo may be assumed to equal the Dep. Thus, DLo = 8°41'.3 E.

Lo left	44°21' W
D Lo	8°41.3 E
Lo in on equator	35°39.7 W

Dist = Dep.

Dep. 521.3	log. 2.71707
sin C 43°	log. 9.83378
Dist 764.3	2.88329
Total Dist	868
Dist to equator	764.3
Dist S of equator	103.7



For brevity, we shall solve the rest of the problem by inspection:

Table 2, C 43°, Dist. 103.7, Lat. 75.9, Dep. 70.7.

D L 75.9 = 1°15'.9 S, which is Lat. in. As Dep. is made near equator, Dep. = D Lo = 1°10'.7 E

Lo left on equator	35°39.7 W
D Lo S of equator	1°10'.7 E
Lo in	34°29.0 W

Note: Had the Dist. been sufficient to take the vessel more than, say, 5° S of the equator it would be unsafe to assume that Dep. = D Lo, and the D Lo S of the equator should be found by the usual Mid. Lat. method.

Example 44: Ship in Lat. 10°15' N, Long. 20°28' W, desires to sail to Lat. 15°30' S, Long. 6°13' E. Required C and Dist. by Mid. Lat.

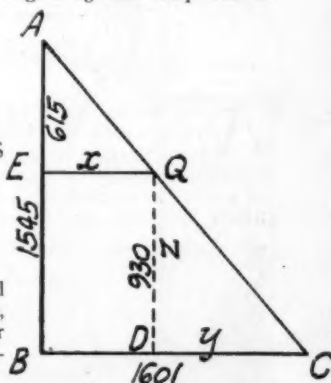
First, find D L and D Lo.

L left	10°15' N
L arrived	15°30' S
D L	25°45' = 1545'

Of which 615' is N, and 930' S of the equator.

Lo left	20°28' W
Lo arrived	6°13' E
D Lo	26°41' = 1601'

The triangles A B C and Q D C have the same angles, and are similar. Hence, their corresponding sides are proportional.



Thus, 1545 : 1601 :: 930 : y  
y = product of means, divided by extreme:

B C	1601	log. 3.20439
Q D	930	log. 2.96848
		log. 6.17287
A B	1545	log. 3.18893
y	963.7	log. 2.98394

D Lo	B C = 1601
D Lo	y = 963.7
D Lo	E Q = 637.3

Thus we have the necessary parts of the two triangles one North, the other South of the equator. The solution of each may be continued:

In triangle A E Q, since the D Lo E Q = 637.3 is on (Continued on page 100)

## New Students Enrolling in Correspondence Course

Many Papers Still Being Received for the First Correspondence Course—  
Students of Dead Reckoning Continue Their Studies—Questions for Lesson No. 5

**T**HERE will be found below the questions on Lesson No. 5 of the Dead Reckoning Course. These cover the subject of Parallel Sailing which was published in the July issue of MoToR Boating. All students enrolled in the Dead Reckoning Course should study this lesson carefully in order to submit correct papers to the examiners. The interesting part of this subject is now approaching and the problems to be worked will all be found practical and useful. It is particularly desirable that the examples given for practice should be worked out as carefully as those which are sent in to be passed on to the examiners.

On the preceding pages will be found a subject matter for the next lesson in this course which covers Middle Latitude Sailing explained in the same thoroughgoing way as the previous chapters. Mr. Potter has spent much time and effort in preparing these lessons for you. Answers to the questions on the lessons may be sent in at any time and should be addressed to the Editor of MoToR Boating, 119 West 40th

Street, New York, N. Y. All answers received during the month will be submitted to the examiners on the last day of the month and the names of those who are successful in passing at least 80 percent will be published in the October issue of MoToR Boating. Answers to the earlier lessons in this course can still be submitted and will be forwarded to the examiners at the end of each month along with the others.

While it is now too late to submit further papers on the questions in the first Correspondence Course in Small Boat Handling, Seamanship and Piloting, prior to Lesson No. 6, answers to the questions for all succeeding chapters will still be received and submitted to the ex-

**More Students Qualify for Pilot Certificates in MoToR Boating's Correspondence Course, Bringing the Total Number to 81. The Following Have Passed All Thirteen Lessons:**

Charles E. Burch	M. A. Young
E. T. Youngfelt	B. P. Boell
John A. Howland	Leslie F. Chapman
George Hanson	Wm. R. Folsom
Geo. D. McCluskey	

aminers as before.

The pilot certificates have been signed and framed. No doubt those to whom they were sent are now happy in their possession. Additional certificates will be mailed to all who earn them as they complete all thirteen lessons and after the examiners report them properly qualified.

### QUESTIONS ON LESSON No. 5—DEAD RECKONING COURSE

Answers to these questions may be submitted at any time to the Editor of MoToR Boating, 119 West 40th Street, New York, N. Y.

1. What is parallel sailing?
2. For what purpose is it employed?
3. What must be the true course made good, if parallel sailing is to be used?
4. Give the two formulae for making the conversion between Dep and D Lo. Complete the following, submitting complete work, and not merely the answers.
5. What is the linear value in miles of  $16^{\circ} 17'.3$  of D Lo along parallel  $43^{\circ} 17' S$ ?
6. Vessel takes departure from Sandy Hook Lightship and sails  $C 180^{\circ} 39.6$  miles;  $C 90^{\circ} 439.3$  miles. Required Lat and Long in.
7. It is reported by wireless that a wreck has been sighted 175 miles E of Nantucket Shoals Light vessel. No further data is given. What is the approximate Lat and Long of the wreck?
8. Vessel 6 miles south of Lizard Point, West Light, England, is instructed to proceed to position in Lat  $49^{\circ} 52' N$ , Long  $20^{\circ} 17' W$ . What will be her course and Dist.?

The names of those who successfully passed papers submitted during June will be found on page 112

## A Most Convenient Boat Yard

**A**T the western point of City Island will be found a boat yard which has been established at this place for many years. In fact three generations of boat builders have successfully conducted this plant and the traditions of quality in workmanship and materials which were established long ago are followed out to a more painstaking

degree than ever before. The reputation established was built up on the beautiful sail and motor boats built during the many years under the successful supervision of leading naval architects of the country. The House of Wood was founded in 1860 by Augustus T. Wood who with a far seeing eye realized the value of the location at City Island.



Waterfront view of the 150 and 300 ton marine railways at the boat yard of B. F. Wood, Inc., City Island, N. Y.

# SMALL MOTOR BOATS

## Their Care, Construction, and Equipment

### A Monthly Prize Contest Conducted by Motor Boatmen

Questions Submitted for the October Prize Contest

1. Explain the construction and anchoring of an inexpensive but serviceable club float.

(Submitted by W. B. M., Newburgh, N. Y.)

2. Describe the installation of a hose for washing down decks on a small cruiser, water taken from outboard and pump either engine circulating pump or a separate one run from engine.

(Submitted by H. H. P., Oakland, Calif.)

#### Rules for the Prize Contest

ANSWERS to the above questions for the October issue, addressed to the editor of MoToR BoatinG, 119 West 40th St., New York, must be (a) in our hands on or before August 25, (b) about 500 words long, (c) written on one side of the paper only, (d) accompanied by the senders' names and addresses.

The name will be withheld and initials used. QUESTIONS for the next contest must reach us on or before August 25. The Editor reserves the right to make such changes and suggestions in the accepted answers as he may deem necessary.

The prizes are: For each of the best answers to the questions above, any article or articles sold by an advertiser advertising in the current issue of MoToR BoatinG of which the advertised price does not exceed \$25, or a credit of \$25 on any article which sells for more

than that amount. There are two prizes—one for each question—but a contestant need send in an answer to only one if he does not care to answer both.

For answers we print that do not win a prize we pay space rates.

For each of the questions selected for use in the following month's contest, any article or articles sold by an advertiser advertising in this issue of MoToR BoatinG of which the advertised price does not exceed \$5, or a credit of \$5 on any article which sells for more than that amount.

All details connected with the ordering of the prizes selected by the winners must be handled by us. The winners should be particular to specify from which advertisers they desire to have their prizes ordered.

## Making An Emergency Pipe Repair

Valuable Suggestions to Enable the Resourceful Boatman to Complete His Voyage In the Event of Damage to Piping

Answer to the Following Question Published in the June Issue

"Explain an emergency and permanent repair for a split or otherwise damaged exhaust or water pipe without disconnecting it"

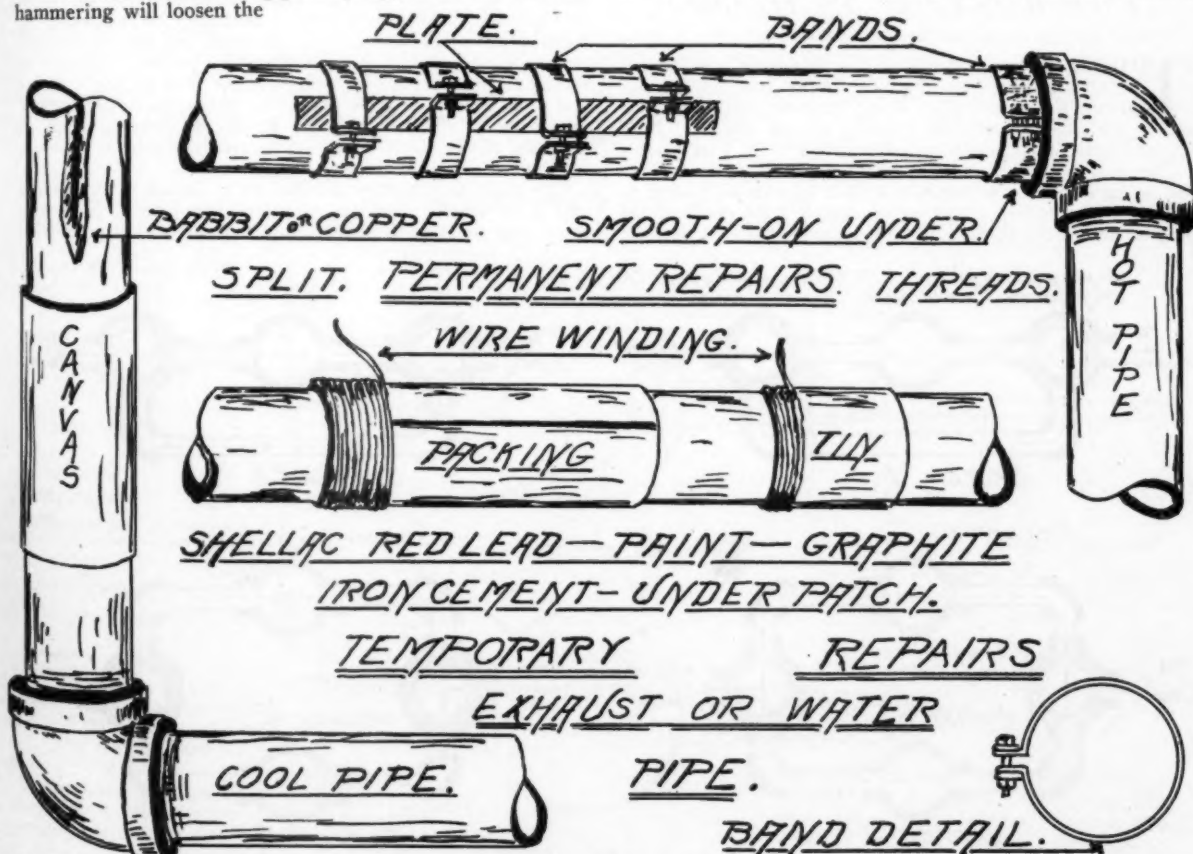
### Emergency Pipe Repairs

(The Prize-Winning Answer)

AFTER long use, the exhaust pipe will often be found badly corroded and covered with scale mostly on the inside. While the pipe may appear sound, a little hammering will loosen the

scale and reveal the true condition of the pipe. This is a condition often found in the exhaust piping of a marine motor, due to the corrosive action of salt water, carbon deposits and the heat of the exhaust.

The most practical repair is a new piece of pipe. If the cost is no factor, use brass throughout, but do not use brass



Several ingenious pipe repairs suggested by W. B. M.

in contact with iron around salt water. The iron will deteriorate much more rapidly than if all iron were used. This is due to electrolysis.

Water piping is generally brass which is not apt to fail except through mechanical injury.

In an emergency you must make the repair with material at hand. A piece of asbestos packing set in graphite pipe joint compound, thick paint, red or white lead, shellac, putty or even brown soap, and tightly and closely wrapped with wire while the pipe is cool, will hold until you can get home, and generally for the remainder of the season. Begin wrapping at the edges and work toward the center. The heat of the exhaust will expand the pipe and burn the coating to the pipe and the patch so that you will have to use a chisel to remove it.

Steam hose tightly bound over the crack will hold temporarily, and ordinary hose or rubber or leather belting will be better than nothing.

A piece from a tin can applied in much the same manner as above or held by iron bands bolted around the pipe will do for a time. Covering the whole pipe is not always necessary. Often a strip an inch or more wider than the damaged spot will be sufficient. If Smooth-On Iron Cement is available, use it under the patch in preference to anything else.

Where the exhaust can be cooled, friction tape or strips of canvas will answer to hold the patch in position. With a cooled exhaust, a canvas patch well coated and wrapped, preferably with wire, will hold for a while.

A piece of copper, babbitt or lead may be used temporarily with a wet exhaust, or with a dry exhaust by covering with wet cloths and keeping them wet in order to keep the soft metal from melting. Form the soft metal so that it will just enter the opening and drive the edges and wire in.

In a tight pinch you can use your suspenders or belt and shoe laces so long as you prevent them from burning; and set the patch with chewing gum if there is any aboard. You can get lamp black by smoking a bottle or cold piece of metal and mix the soot with cylinder oil. Rummage around the lockers and you can find something with which to temporarily stop or lessen the leak.

To make a permanent repair on a split exhaust pipe prepare an iron plate shaped to fit the pipe, which will cover the damaged portion about an inch on all sides; and several band iron clamps to hold it in position. Clean the crack and adjoining metal and the inside of the patch and coat it  $\frac{1}{8}$  inch thick with Smooth-On Iron Cement No. 1 or No. 2.

For a break around the threads, prepare a band with two bolts so as to just come together around the pipe and clean the metal. Apply Smooth-On as above and tighten the outside bolt. Then drive the band tightly against the fitting and tighten the other bolt.

Dry red lead and shellac, or litharge and glycerine, will hold, but they do not quite equal Smooth-On.

Where the pipe is broken completely off, a wide band is advised. Steam hose may be worked over the break, by wetting it with gasoline, and clamped in position.

W. B. M., Newburgh, N. Y.

## Double Strainers for Easy Cleaning

Clever Piping Arrangements for Easy Cleaning of Dual Strainers And Easy Cleaning Without Requiring the Motor to Be Stopped

Answer to the Following Question Published in the June Issue

"Describe an installation of strainers on the gasoline line so that the engine may run continually and still permit the strainers to be cleaned"

### Three-Way-Cocks Are Handiest

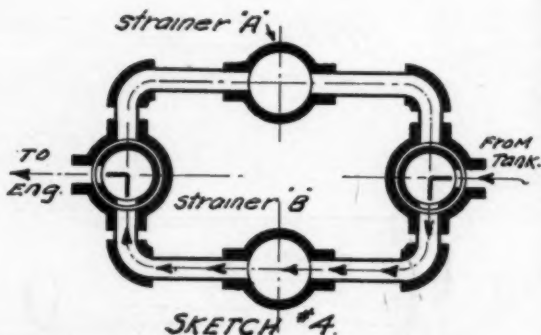
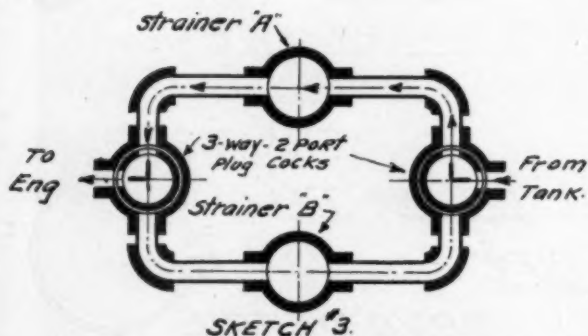
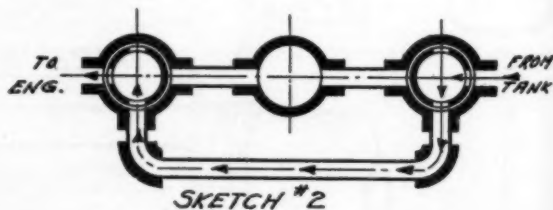
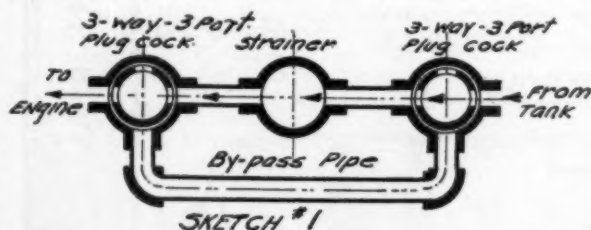
(The Prize-Winning Answer)

THERE are two simple and satisfactory installations of strainers in the gasoline supply line which will permit the cleaning of these strainers without interfering with the continuous running of the engine. Both are the same in principle but differ slightly in first cost.

The first of these, and the least expensive, contemplates the fitting of only one strainer with a by-pass around it as indicated in sketches 1 and 2. In sketch 1 the ports in the plug or key of the three-way cock are shown so set that the

gasoline is directed through the strainer and cut off from the by-pass. When it becomes necessary or desirable to clean this strainer, the plugs of the cocks are turned through an angle of 90°, the ports taking the positions shown in sketch 2. This completely cuts off the flow to the strainer and sends it to the engine via the by-pass pipe. The strainer may then be cleaned and this should be done as soon as possible, for while it is out of service the engine is being supplied with unfiltered gasoline.

The more satisfactory installation is shown in sketches 3 and 4 in which duplicate strainers are fitted. Sketch 3 shows the ports in the plug set so that the gasoline goes to



Diagrammatic sketches of strainer arrangements by R. G. S.

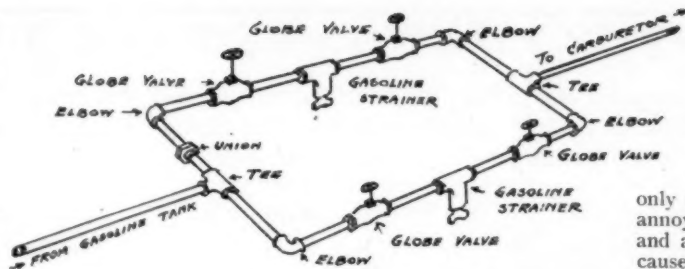
the engine through strainer A, strainer B being completely cut off. When it is desired to clean strainer A, the plugs in the cocks are turned 90° so that the ports take the positions shown in sketch 4, cutting off strainer A and supplying the engine through strainer B. Strainer A may now be cleaned at the operator's convenience, within reasonable limits, as the supply can be kept flowing through strainer B until it in turn needs cleaning.

The operation of shifting the flow is practically instantaneous and will not affect the operation of the engine. The square on top of the plug by which it is turned is notched to indicate the position of the plug in the plug, giving the operator exact information as to the direction of the flow through them.

R. G. S., Hampton, Va.

### Standard Pipe Fitting Suitable

TO my mind there is only one acceptable method of installing strainers on a gasoline line which will feed gasoline continuously to the carburetor and still permit the cleaning of the strainers at any desired time without interfering with the flow of the gasoline. This method consists of providing a by-pass in the gasoline supply line, located at any convenient point along the line, so that the by-pass will be easily accessible should the strainers require cleaning. The by-pass is easily made up and consists of four globe valves, two gasoline strainers, one union, four elbows and the necessary nipples, the length of the nipples depending upon the space available. The gasoline line is cut off at the required point and a tee connected to same, from this tee branches are carried in opposite directions and at right angles to the gasoline line, now connect an elbow at each end and make connections for two valves and one gasoline strainer at each side, bringing the ends together once more and connecting same with the line running to the carburetor. Should it be required to clean either,



Pipe arrangement by F. W. L., using standard pipe fittings

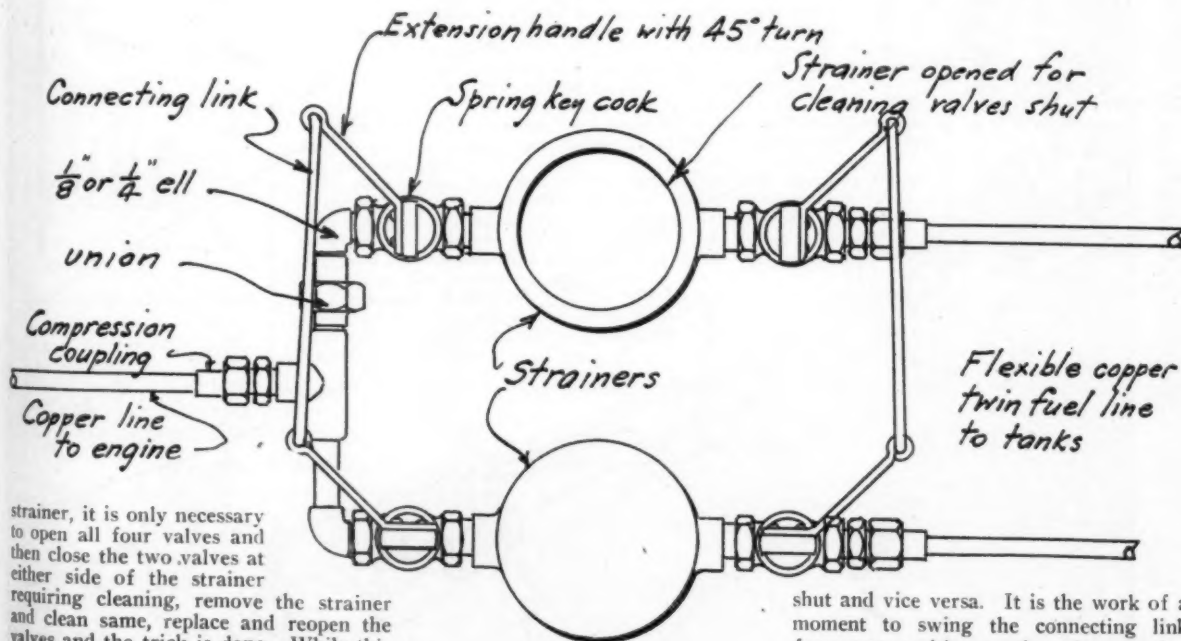
The by-pass may be easily made up from standard articles which may be purchased from any concern dealing in motor boat accessories.

F. W. L., W. N. Brighton, N. Y.

### Double Strainer Installation

THE diagram shows a method of connecting up two gasoline strainers or water separators, of any make or type, so that one may be shut off and cleaned while the engine is running. No special fittings, except the extension cock handles and connecting links, which may be made up of brass or steel flat stock, are required. As an extra precaution against clogging, twin fuel lines from tank to strainers are shown; if there are two fuel tanks, a line can be run to each and one tank held in reserve. Four ordinary brass spring shut-off cocks are installed, one on each side of each strainer. If these have long handles, they may be given a forty-five degree twist and linked together; otherwise, extensions are riveted or screwed to the original handles. Arrange the handles and links so that when one cock is turned on, the link will cause the adjacent one to be off. Thus, if one strainer is to be cleaned, the fuel line on both sides of it can be shut off, while the fuel has an open run through the other line and strainer. It is well to place a drip pan of good capacity, covered with copper gauze, under the strainers and valves.

The particular advantage of interconnecting the shutoff cocks in this manner is that of providing a constant supply of fuel to the motor. It is not possible to shut off both lines at one time since one cock is always open when the other is



strainer, it is only necessary to open all four valves and then close the two valves at either side of the strainer requiring cleaning, remove the strainer and clean same, replace and reopen the valves and the trick is done. While this cleaning is being accomplished, the gasoline flows uninterruptedly through the opposite pass, and after the cleaning, the

A double throw system by H. H. P. which swings from one strainer to another instantly

shut and vice versa. It is the work of a moment to swing the connecting link from one position to the other so that when the engine falters due to this cause it can be supplied with clean fuel instantly. H. H. P., Oakland, Calif.

For Use in Connection With Coast and Geodetic Survey Charts Nos. 1220, 1221, 1222



# Motor Boating Activities Everywhere

New Yachtsmen's Association Formed—England Suggests Changes in Rules for International Trophy—Detroit Invites World to Hold International Motor Boat Conference—Cuba Offers \$10,000 for Motor Boat Race Next Winter

## Yachtsmen's Association of America Formed

A number of yachtsmen from various sections of the United States and Canada met in Detroit recently and organized the Yachtsmen's Association of America.

The new association's objects will be to look after legislative matters, aids to navigation and seamanship, to assist and co-operate in national and international races, to obtain the widest possible publicity for the great sports of yachting and motor boating.

It was pointed out by the organizers that the new club will co-operate with the many yacht associations throughout the country and that the large national body composed of, not only boat and engine builders, owners and users but also that great portion of the American public who are lovers of the outdoor sport, will be enabled by reason of great numbers of members, to carry out the objects of the association.

Up to the present time there has never been a large popular organization which has devoted its entire activity to the interests of yachting.

### OFFICERS

The officers elected at the first meeting are: Gar Wood, President; A. A. Schantz, 1st Vice-President; Sheldon Clark, 2nd Vice-President; Edsel B. Ford, 3rd Vice-President; S. B. Egan, 4th Vice-President; W. B. Wilde, 5th Vice-President; H. B. Greening, 6th Vice-President; Carl G. Fisher, 7th Vice-President; J. Lee Barrett, Secretary-Treasurer.

### EXECUTIVE COMMITTEE

A. A. Schantz, Chairman, Detroit; Chas. F. Chapman, New York; F. R. Still, Detroit; Webb Jay, Chicago and Col. Thos. A. Duff, Toronto.

### THE DIRECTORATE

The directorate includes the following: Gar Wood, Detroit, Mich.; A. A. Schantz, Detroit, Mich.; Sheldon Clark, Chicago, Illinois; Walter B. Wilde, Peoria, Illinois; Chas. F. Chapman, New York, N. Y.; Edsel B. Ford, Detroit, Mich.; S. B. Egan, Buffalo, N. Y.; Carl G. Fisher, Indianapolis, Ind.; Otto F. Barthel, Detroit, Mich.; Webb Jay, Chicago, Illinois; H. B. Greening, Hamilton, Ont.; W. D. Edenburn, Detroit, Mich.; Thomas A. Duff, Toronto, Ont.; F. R. Still, Detroit, Mich.; Fred R. Miller, Toronto, Ont.; W. E. Metzger, Detroit, Mich.; Robt. E. Power, Cleveland, Ohio; Ralph Sidway, Buffalo, N. Y.; Alex I. McLeod,

Algonac, Mich.; Peter Morales, Havana, Cuba; Jas. R. Allison, Indianapolis, Ind.

The Board of Directors is elected for three years and the Executive Committee selected from their number.

### STATE VICE-PRESIDENTS

The following State Vice-Presidents were elected for a period of three years:

#### EASTERN STATES

Caleb Bragg, New York, N. Y.; Allen B. Endicott, Jr., Atlantic City, N. J.; Charles Hieber, Philadelphia, Pa.; Humphrey Birge, Buffalo, N. Y.; Roger Upton, Boston, Mass.; A. B. Bennett, Washington, D. C.; F. P. Huckins, Boston, Mass.; Gordon Hammersley, New York, N. Y.; M. N. Price, Baltimore, Md.; J. P. Stoltz, New York, N. Y.; E. L. Grimm, Buffalo, N. Y.; I. M. Upperco, New York, N. Y.; Chas. A. Crique, Buffalo, N. Y.; Ira Hand, New York, N. Y.; Wm. W. Nutting, New York, N. Y.

#### CENTRAL STATES

C. W. Kotcher, Detroit, Mich.; Wm. C. Morehead, Milwaukee, Wis.; Eugene Quigley, Cleveland, Ohio; Harry Stutz, Indianapolis, Ind.; P. C. Jones, Toledo, Ohio; A. T. Griffith, Peoria, Ill.; Thos. Webb, Peoria, Ill.; W. S. Gilbreath, Detroit, Mich.; A. C. Newby, Indianapolis, Ind.; Harry Parsons, Cleveland, Ohio; N. J. Kenney, Peoria, Ill.; James H. Hammond, Pittsburgh, Pa.; R. W. Whitlock, Rising Sun, Ind.; J. G. Vincent, Detroit, Mich.; E. B. Blakeley, Milwaukee, Wis.; Jack Farr, Detroit, Mich.; John T. McCutcheon, Chicago, Ill.

#### SOUTHERN STATES

H. N. Moody, New Orleans, La.; Capt. Chas. Ferran, New Orleans, La.; Dr. T. C. Brooks, Bay City, Texas.

#### WESTERN STATES

Hal Roach, Los Angeles, Cal.; Dustin Farnum, Los Angeles, Cal.; W. W. Brown, Los Angeles, Cal.; Frank S. Baker, Tacoma, Wash.

#### CANADA

Jas. W. Cummerford, Toronto, Ont.; F. C. Ericson, Toronto, Ont.; Com. J. K. L. Ross, Montreal, Que.; Geo. H. Gooderham, St. Catharines; Alfred Rogers, Toronto, Ont.; C. H. O. Pook, Hamilton, Ont.; Norman Howden, London, Ont.; C. R. Allison, Toronto, Ont.; J. H. Barton, St. John, N. B.

#### CUBA

Aurelio Hernandez Miro, Havana; Rafael Passo, Havana; S. Ulivarri, Havana; John Rivera, Havana.

#### ENGLAND

Morton Smart, Commodore, London; T. P. Wynn Weston, Southampton; Sir Mackay Edgar, London; Edmund Dangerfield, London.

(Continued on page 98)

**YACHTING** and Motor Boating have, within the last few years, advanced with such strides, that they have now become recognized as one of the leading outdoor sports of America.

A group of men, of the United States and Canada, interested in the great sport, believe that the best manner of encouraging, advancing, and co-ordinating the efforts of the various Clubs and individuals, is to offer them the combined support afforded by a big International Association.

It was with this thought in mind that the YACHTSMEN'S ASSOCIATION OF AMERICA was organized and the officers and Directors elected.

The objects of the Association as incorporated in the By-Laws are:

1. To aid in the establishment and maintenance of a uniform system of laws relating to the use of boats and the rights and privileges of the owners thereof.
2. To arrange for and assist in conducting National and International Racing Events and co-operate with the existing organizations in these objects.
3. To aid in navigation and seamanship.
4. To give proper publicity to yachting and boating.

Immediately upon the announcement of the formation of the YACHTSMEN'S ASSOCIATION OF AMERICA, a group of men decided that a Motor Boat Classic should be held in the United States at some point easy of access and that a cash prize of \$25,000 be offered for this great event which will be held in Detroit, during the summer of 1923. A portion of this fund was immediately subscribed and this great race will be held under the auspices of the YACHTSMEN'S ASSOCIATION OF AMERICA.

Thus, you may see the Yachtsmen's Association of America has from its inception entered into an activity that will bring to the Nation the realization that Yachting and Motor Boating are among the premier sports.

In view of the fact that it was deemed that "In numbers there is strength" it was decided to establish the lowest possible membership fee, which is \$5.00 annually, there being no other assessment or dues. Your interest in this—America's Cleanest Sport—qualifies you for membership and you are invited to join these men in making the movement a success.

The editor of *MoToR BoatinG* will be glad to receive applications for membership in the Yachtsmen's Association of America, and will forward them to the Secretary-Treasurer, J. Lee Barrett, Detroit, Michigan.

# N. L. Stebbins Dies

For Many Years a Yachtsman and Marine Photographer of Boston Who Was Conversant With All Branches of the Sport and Who Had the Largest Acquaintance Among Yachtsmen

DOWN East has lost its greatest yachtsman—the whole country a most enthusiastic and energetic worker for the sport. Nathaniel L. Stebbins of Boston has taken his last cruise and turned over the command of the ship—but to whom, no one seems to know, as there appears to be no one with the ability and the inclination to take charge, so stiff was the pace which Mr. Stebbins set, up to a few weeks ago when illness forced him to take a rest. Even though his illness was apparently serious, Mr. Stebbins would let none of his friends know about it, for, in his own mind, he was determined that he would weather the storm and again take the helm.

Only a few days before his death, Mr. Stebbins wrote us that he'd "be on deck again in a few days." The following paragraph from his letter is typical of the love which Mr. Stebbins held for boating in all of its branches up to the last moment: "It has been a pretty long and hard pull for me with this illness and between you and me, you came extremely near having the opportunity to write an obituary for 'old man Steb' in your next issue, but I think I have turned the corner now and shall probably be on deck again in a few weeks, but right here let me say that although you know my distaste for any kind of publicity, in case I should pass along, it would be a source of gratification if my old friend Chapman would write me up a little bit in MoToR BOATING as to what little I have done in promoting the cause."

It is difficult to picture Mr. Stebbins in any other way than we were all accustomed to knowing him and seeing him in the past. An illustration of his energy and enthusiasm and ability always flashes to our minds when we recall the early days of the United States Power Squadrons and his activity in establishing this wonderful organization which is now so firmly founded as to be an important factor in yachting history and development. It was Mr. Stebbins who first put into crystallized form the Power Squadron idea. Without the work which he did in organizing this body, the Squadrons would not be in existence today. No one else did it and no one else could have done it. It is but one example of the great work which Mr. Stebbins did for the whole yachting cause.

Mr. Stebbins stood for 100 per cent efficiency in yachting. He was that himself, practiced it constantly, and gave most of his life, in an endeavor to educate and make better boatmen of us all.—THE EDITOR.

YACHTING lost one of its most picturesque and virile characters in the recent death of N. L. Stebbins. Whether you were fighting with him or working with him, you couldn't help liking him. At an age when most men retire to the inactivity of a well-stuffed chair, Steb—as he was affectionately known—moved around with the agility of a boy. His wit and repartee was a worthy match for the brightest young mind.

As a marine photographer he became pre-eminent the country over. With that enormous camera he snapped pretty near every famous craft from race-about to battleship. There is no yachtsman alive who can remember when he took his first picture.

He held a first-class United States pilot's license. He was a pioneer, along with Roger Upton, in the Power Squadron movement. For years he was on the board of examination. Any man that got by under his fire of questions was competent to con a man-of-war. He was a member of the Eastern Yacht Club, the Boston Yacht Club and the Boston Power Squadron, and he wore the badge of a United States navigation inspector.

The last time I saw him in action was in September. An easterly gale had kicked up a fine run of sea outside Marblehead. Most men would have stayed ashore—but not Steb. Out he went in the Eastern Yacht Club launch. Wrapping his arms around the camera, and with a couple of seamen

holding him fast aboard, we plowed by in a smother of foam and he took his pictures. This typified the man. His tenacity was indomitable. His spirit breathed of the sea. We have lost a clean, virile American yachtsman.

FRANK P. HUCKINS.

THE death of Nathaniel L. Stebbins at Boston in the second week of July removed from a sphere of activity he had long occupied with success the pioneer of yacht photography in this country.

Mr. Stebbins was the first to photograph moving yachts, in America at least, if not in the world. He was a photographer for many years before snap-shot work, so called, came into vogue. In his earlier days of photographing yachts it was customary to take the vessel at anchor on a calm day. If the sails were hoisted, they hung limp. In order to secure the effect of sailing, the yacht was sometimes moored bow and stern and given a wrap full in a gentle breeze. This did not always prove successful, for a long exposure was necessary.

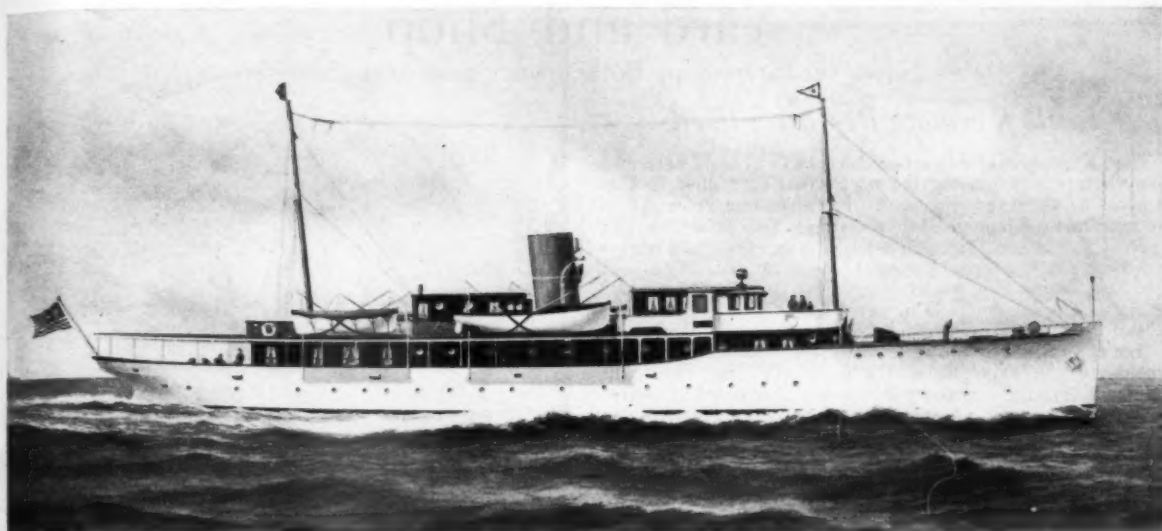
When the dry plate came in, making possible quick exposures that would arrest the motion of a vessel actually under sail, and fix the image without blurs, Mr. Stebbins was the first to try it in yacht work. That was in the early eighties, if my memory serves me. One of his first subjects was the famous schooner yacht America, of which he made a picture showing her under sail off Boston light. That was about 1883 or 1884. The picture was the first one made of that celebrated yacht under way. The negative was treasured by Mr. Stebbins, and is in his collection, which is preserved at his place of business, 132 Boylston Street, Boston, together with thousands of others. It is probable, in fact, that this collection is the most extensive in existence of American yachts. It also included hundreds of negatives of British yachts of earlier times, for Mr. Stebbins made several trips abroad after perfecting the photographing of yachts in motion, and came home with a fine collection of negatives each time. His work was well known and highly valued by the yachtsmen at Cowes and other British yachting centers 25 years ago.

In the America Cup yachting field Mr. Stebbins for many years was also prominent. The Puritan-Genesta races off Sandy Hook in 1885 were the first international matches pictured by instantaneous photography. Other photographers by that time had entered the yachting field, but Stebbins was the leader of them all in results, and continued so for many years. He photographed every series of international matches off Sandy Hook from 1885 to 1913, usually from his own tug. He was known to all the racing owners and skippers, and his work was highly valued by them. His plates were unusually clear, and had the quality of reproducing well; while his prints never faded. He would not rush a print in washing for anybody, and never adopted the short cuts of alcohol drying and the like to get out quick prints. This kept his work at a very high standard. For many years he was highly successful in photographing steam yachts and motor boats.

Personally Mr. Stebbins was a man of distinct character. Slight in build, he wore a pointed light brown beard, which accentuated rather intellectual features. He was quiet and modest, a teetotaler, and not a mixer. His manner was direct, and he never hesitated to call a spade by its right name. He was a home body, preferring an evening by the library lamp in his pleasant home at Somerville, Mass., to the best entertainment at a theater. He was a member of the Unitarian church.

In his calling Mr. Stebbins was keen to detect sources of business, and to follow up his opportunities when a commission had been given him. He was punctilious in his business dealings, and when he made a friend he rarely lost him. Yachtsmen of means respected his business probity

(Continued on page 112)



## Ohio, Another Diesel Yacht

Construction Begun on New Seagoing Yacht to Be Powered With Diesel Motors Showing Increasing Popularity of This Type Among Yachtsmen

**P**ARTICULARLY designed for off shore service, the new Diesel yacht Ohio bids fair to excel any of her predecessors among yachts of this type. Construction has just been begun at the yards of Newport News Shipbuilding & Dry Dock Co. from designs by Cox & Stevens the New York architects who have just completed the 180-foot yacht Dolphin described in *MoToR BOATING* last month. This new boat will be quite similar and 178 feet in length. Her beam will be 26 feet. An unusually heavy displacement has been provided since the vessel is intended

for off shore service. Her power equipment consists of two 350 h.p. six cylinder Winton Diesel engines which will drive her at a sustained speed of 12 knots. Fuel capacity for a cruising radius of 9,500 miles has been provided, while the capacity for water and stores is in like proportion. Elaborate accommodations for the owner and guests are provided both in the full length steel deck house and below. Extensive radio equipment will be carried so that the owner can give attention to urgent business affairs while cruising off shore.

## A Superpowered Bear Cat

Standard 26-Foot Runabout Powered With a Six-Cylinder Hall-Scott Marine Motor Exceeds Expectations

**T**HE new Pee Jay, a standard 26-foot Belle Isle Bear Cat runabout which has just been completed for Peter J. Schaefer, of Chicago, Ill., is identical with the stock boats of this type with a few slight changes. The cockpit forward has been made to accommodate three passengers, while the after cockpit has been reduced in length to permit the installation of the slightly longer six-cylinder Hall-Scott marine motor in place of the four-cylinder motor of the same make which is the standard equipment.

An earlier boat of the same name which Mr. Schaefer used last summer at his Eagle River, Wis., home was powered with a four-cylinder motor. Its per-



formance so pleased him that he decided he wanted another Bear Cat, but with greater speed possibilities. The larger boat was accordingly authorized and the six installed, with the result that a rate of 41.3 m.p.h. was attained over the measured mile course.

The boat handled the heavier motor perfectly and carried the additional 200 lbs. of weight without any trouble whatever. In fact, the Belle Isle Boat Co. is enthused about the sixes in their Bear Cats and advise that they make a wonderful combination. The boat planes perfectly and handles just as well as with the four-cylinder 125 h.p. motor. The accompanying illustration shows the boat running slowly on trial trip.

# Yard and Shop

Notes of Interest to Both Owner and Manufacturer

## Little Kermath Performs Well

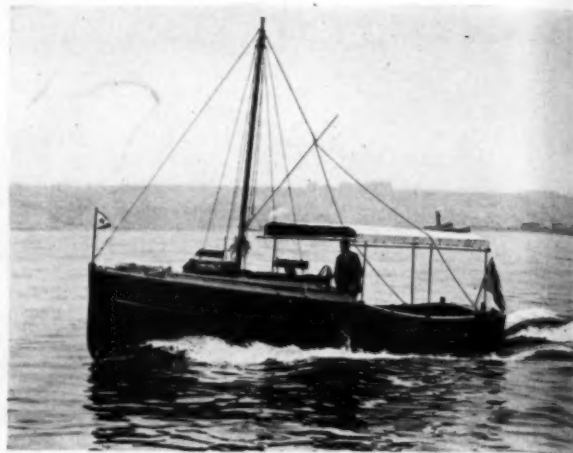
The Kermath Manufacturing Co. of Detroit receive many letters commending the performance of their motors in boats of all types and sizes. A recent one referring to the new small 3 h.p. size is interesting. Its owner has just finished a cruise of 175 miles, which gave the little engine as severe a test as could possibly be arranged. The boat used was an 18-foot round bottom boat, rather heavy for its size. The letter reads in part:

"Before starting on the cruise the engine was run about six hours to break it in. The party left Washington for a run down the Potomac and Chesapeake Bay to North Beach, Maryland. Seventy miles were covered the first day in fair weather. A storm set in and until the trip was finished the boat was badly tossed about. All boatmen were surprised to see so small a boat and engine out in such weather. At St. Jerome Creek, where we were forced in by the storm, a number of fishermen gathered on the wharf kept us busy for an hour answering questions about the motor. During the whole trip in some of the roughest weather the engine never missed a stroke. In 24 hours of actual running time it consumed about 12 gallons of gas."

—W. P. Martsch.

## Service in Philadelphia

The yachtsman who has had difficulty in securing proper service for his motor will now be able to have his wants looked after in good shape. The Marine Engine Co. of Philadelphia has been organized particularly to look after the wants and difficulties of the motor boat user. D. C. McNeill, the president of this company, taking a page from his own experiences in unsatisfactory dealing with manufacturers, has decided that there is room for some one to smooth the way for yachtsmen. A special effort will be made to see that parts and engines



Billdee, a 30-foot V-bottom cruiser used by W. C. Disbrow, Jr., New York, N. Y., in carrying on his business as the Metropolitan Distributor of Scripps motors. This little boat has made long trips, particularly along the coast, and its D-4 Scripps engine is always ready for a demonstration.

of used and new motors and enjoys the confidence of all with whom he has done business. His one object in life at the present time is to see that a better standard of service is established for remedying the troubles and difficulties of the marine engine user.

## Evinrudes for Royal Canadian Mounted Police

As an article of service for the sportsmen the Evinrude outboard motor, built in Milwaukee, Wis., is well known. It is not so generally recognized that the Evinrude is also a factor in industry. An order received from the Montreal Distributor of these motors reads as follows:

"I have just wired you to ship me immediately three 3½ h.p. engines and a lot of spare equipment for same. I hope that you had no trouble in deciphering the contents of my message and that, thanks to your usual efficient handling of orders, the whole shipment has since left your place. These three machines are for the Royal Canadian Mounted Police and will be used above the Arctic Circle, hence my instructions for accurate execution of the order as well as substantial packing." The three Evinrudes ordered are the heavy duty commercial type, of which hundreds are used in Canada by contractors, dredging companies, logging companies and various Government departments. A commercial folder describing this particular motor will be sent to any one interested on request.

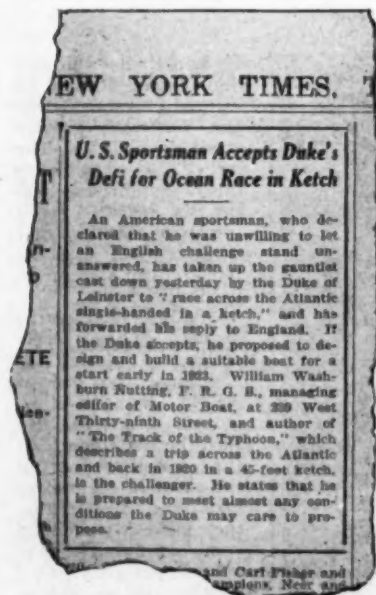
## Bedouin III, A New House Boat

An extensive trial trip from Salisbury, Md., to Far Rockaway has just been taken by a new 50-foot house boat designed by J. Murray Watts for L. H. Strouse. The boat is one of the most luxurious of the new crop of cruising house boats and proved to be a very able craft during some heavy weather encountered on the trip. She can accommodate eight people comfortably, exclusive of the crew. An 80 h.p. heavy duty Sterling motor is fitted, which yields a cruising speed of 10 and a (Continued on page 59)



The Evinrude trophy at the Milwaukee Regatta aroused considerable competition. Twenty entrants raced for the cup and it was won by Maurice Edwards with Fred Young and Herbert Nelson in second and third place. All used Elto light twin motors on their boats.

are promptly shipped by the factories and that the full shipment will be included in the first lot. The engine department will be directly in charge of H. H. Kramm, an expert in this line. He has had extensive experience in the rebuilding and sale



We doubt very much whether the Duke will accept the challenge of our contemporary editor, but if he does, MoToR BoatinG wishes the American sportsman the best of luck.



Captain Benjamin of the "Aloha" writes: "I have used VALSPAR on the 'Aloha' and have found it to be very effective in withstanding the action of the weather and water".

## "ALOHA"—

### *Veteran of the Seven Seas*

"ALOHA", the property of ex-Commodore Arthur Curtiss James of The New York Yacht Club, has been called the largest and finest auxiliary steam yacht afloat. Three times she has circled the globe. Today she is on her fourth round-the-world voyage. On this trip "Aloha" expects to touch at all interesting ports of the Mediterranean, Red Sea, China and Japan.

Designed by the well-known naval architects, Tams, Lemoine & Crane—built in 1910 by The Fore River Shipbuilding Company—"Aloha" is propelled by Triple Expansion engines which give her a speed of ten knots per hour.

Her owner's quarters, consisting of 6 staterooms, each with a private bath, are the last word in comfort. Dining Room, Library and Smoking Room are equally luxurious. Both above and below decks, "Aloha" is furnished and fitted with every possible comfort and convenience.

On such a craft we expect to find only the finest materials employed. Naturally enough, we find that "Aloha's" bright work is

*Valsparred, of course!*



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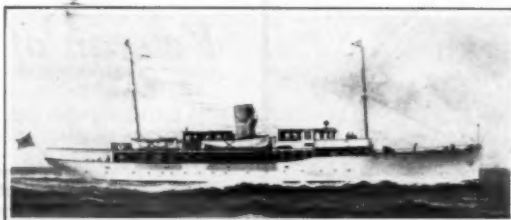
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## COX & STEVENS

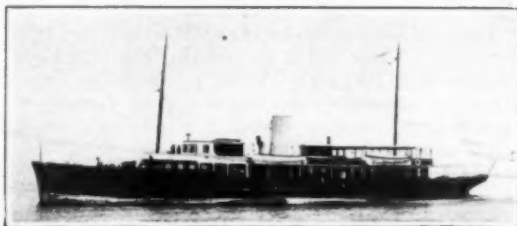
CUNARD BUILDING  
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Naval  
Architects

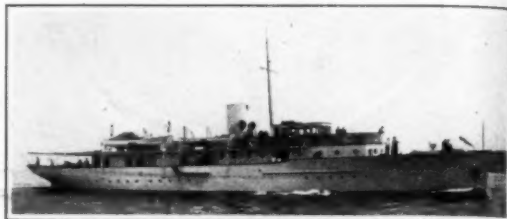


unio

Yacht  
Brokers



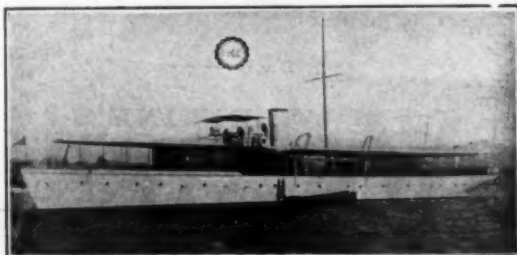
DOLPHIN



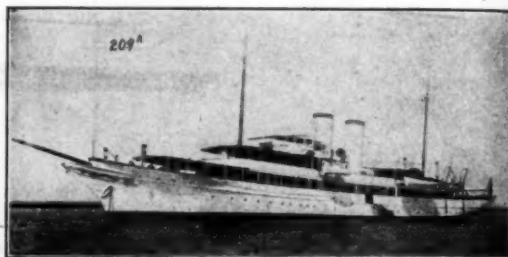
NOURMAHAL

Above are shown three new Diesel-Motor Yachts from our designs

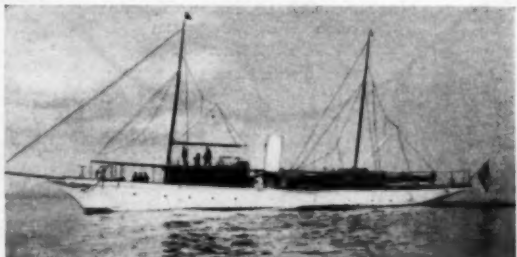
### Complete List of Yachts All Types Available for Sale or Charter



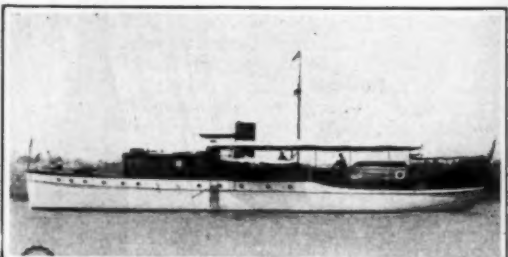
No. 1466—For Sale or Charter—Large and comfortable twin-screw steel cruising power yacht. Speed up to 17 miles. Dining saloon and social hall on deck; 3 double and 1 single staterooms. 3 bathrooms, etc. Handsomely fitted owner's quarters. Modern plumbing. Cox & Stevens, 25 Broadway, New York.



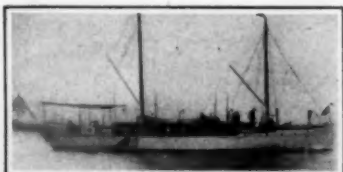
No. 209—For Sale or Charter—Large sea-going steam yacht. Exceptional speed. Palatial accommodation. Unusual opportunity. Several similar and smaller available craft. Cox & Stevens, 25 Broadway, New York.



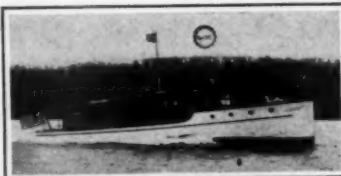
No. 40—For Sale or Charter—Steel steam yacht; 140 x 17.6 x 7.6 ft. Lawley built, 12-14 miles; triple expansion engine; new main engine, boiler 1916, condenser retubed and furnishings renewed 1920. Deckhouses contain dining saloon, social hall; owner's stateroom, two beds; three guests' staterooms (one double); two bathrooms. Cox & Stevens, Cunard Building, 25 Broadway, New York.



No. 2027—For Sale or Charter—Exceptionally roomy 90 ft. twin screw power yacht. Speed 12-14 miles; 50-60 H.P. motors. Dining saloon in deckhouse forward, main saloon, two double and two single staterooms, bathroom and two toilets, etc. Large deck space. In commission. First-class condition. Cox & Stevens, 25 Broadway, New York.



No. 353—Unusual bargain; 70 ft. cruising power yacht. Standard motor. Large saloon, double and single stateroom, bath and toilet room. Very able craft. In good condition. Price from Cox & Stevens, 25 Broadway, New York.



No. 4050—For Sale—High class fast 52 ft. twin-screw enclosed bridge deck cruiser. Speed up to 30 miles; two 8 cyl. 200 H.P. Speedway motors. Double stateroom, saloon with two pullman berths, toilet room, galley, etc. In commission. Price attractive. Cox & Stevens, 25 Broadway, New York.



No. 3529—For Sale—Attractive 60 ft. enclosed bridge deck cruiser. Standard motor, new 1920. Large saloon, double stateroom, toilet room, galley, etc. Excellent condition. In commission. Price reasonable. Cox & Stevens, 25 Broadway, New York.

Full Particulars, Plans, Photographs and Prices of the Above and Other Available Yachts Furnished on Request

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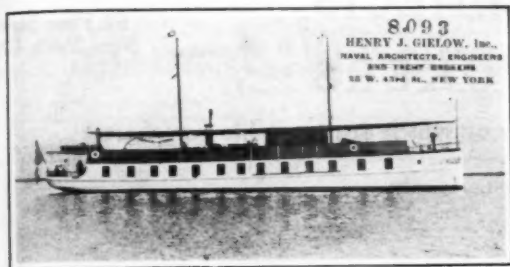
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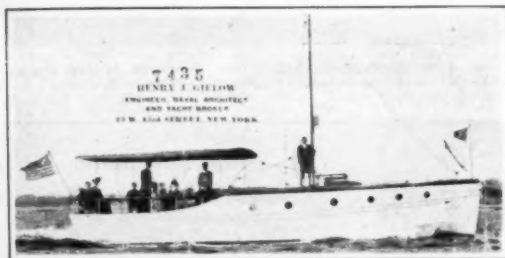
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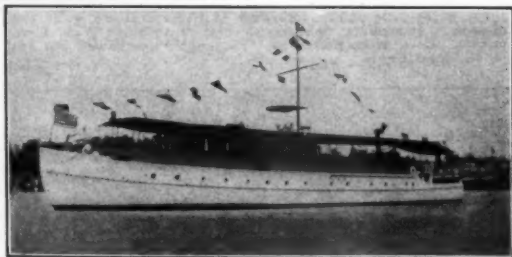
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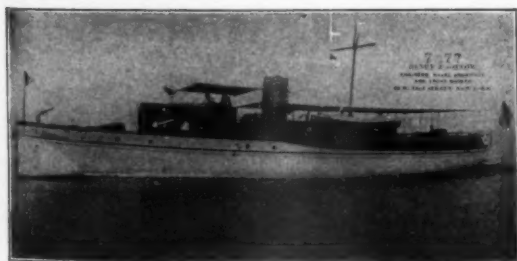
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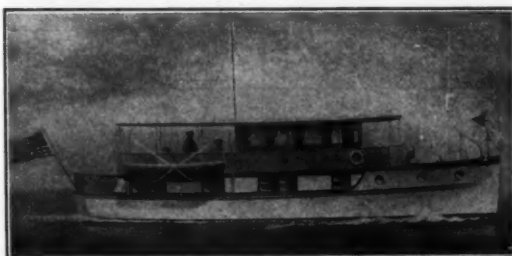
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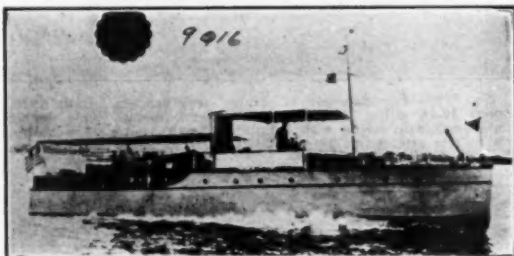
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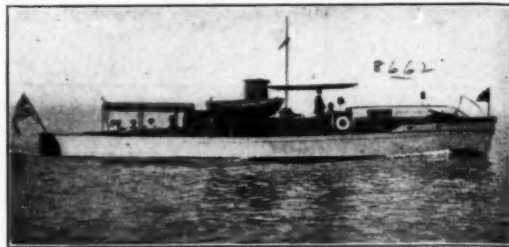
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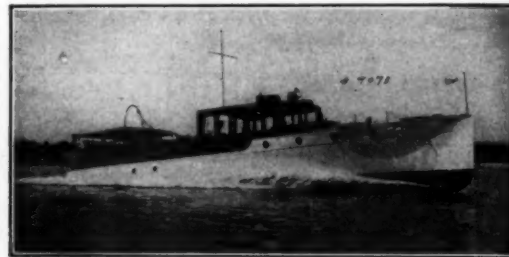
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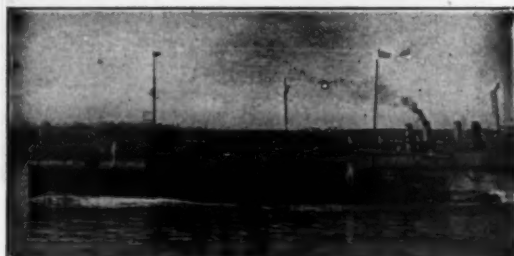
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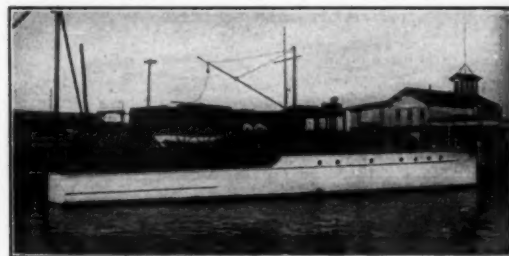
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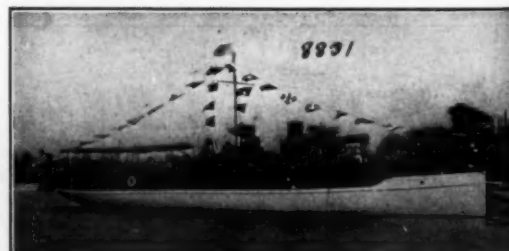
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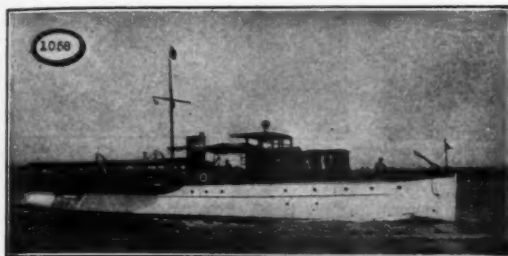
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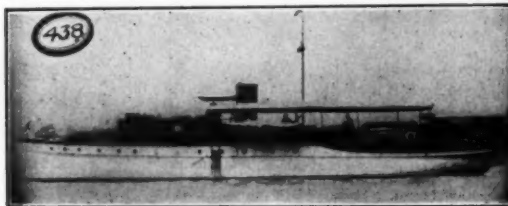
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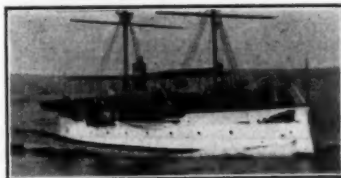
No. 1058—For Sale—desirable twin screw cruiser new 1921 93 ft. x 15 ft. x 5 ft. Powered with two 80-110 H.P. 6 cyl. Winton motors. Large deck dining saloon. Very commodious. Owner's double stateroom with large bath and dressing room. One double and single guest staterooms. Very attractively finished and equipped. Further particulars Henry C. Grebe & Co., Inc., 6 North Michigan Ave., Chicago, Ill.



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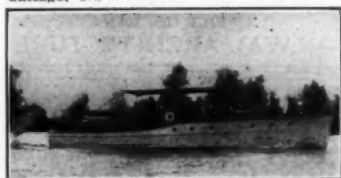
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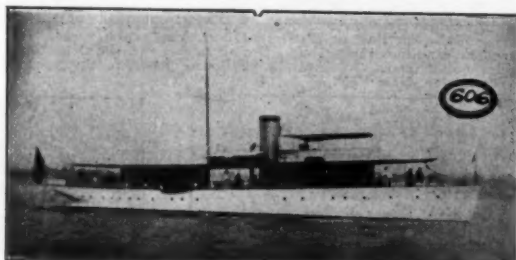
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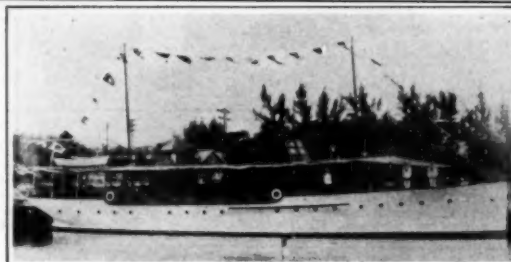
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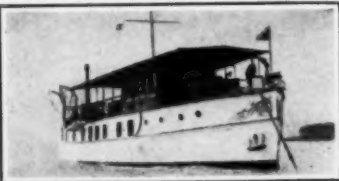
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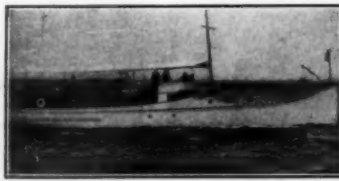
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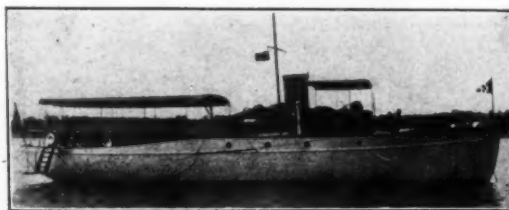
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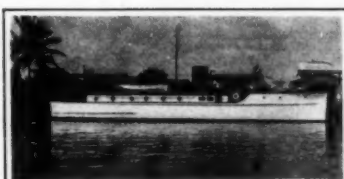
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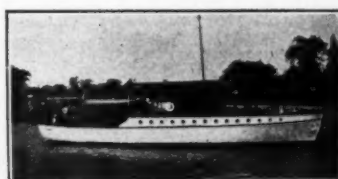
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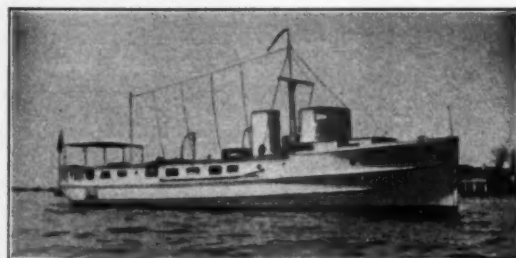
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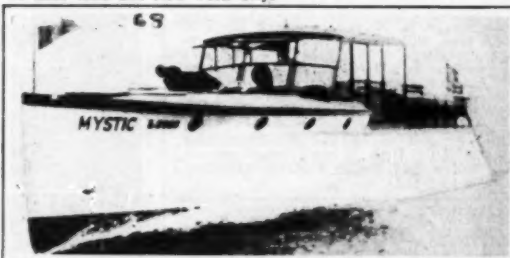
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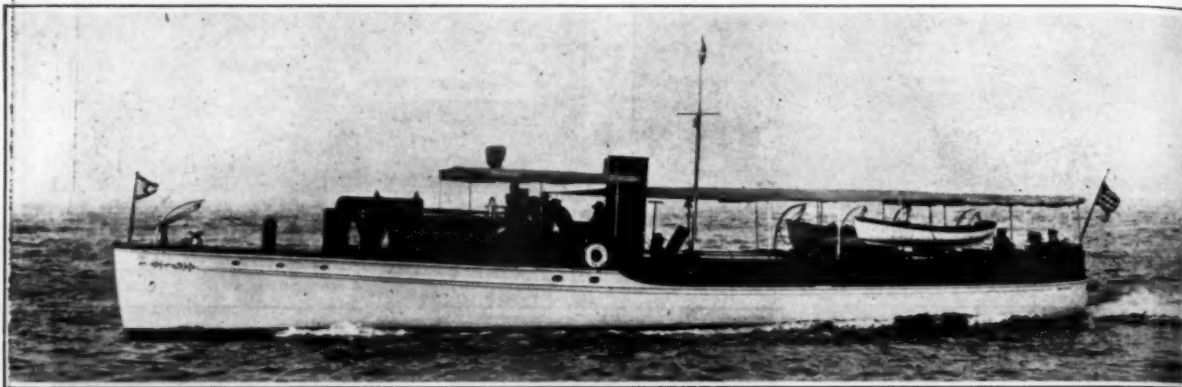
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Description	Description
Twin 300 H.P. Sterling, Model "F," 8 cyl., 4 cycle, $6\frac{1}{4}$ x 9, with carburetors, coil, magneto, electric starter attached, reverse gear, etc.; complete up to and including flange coupling; one year guarantee same as that given with a brand new Sterling	75-80 H.P. Winton, 6 cyl., $6\frac{1}{4}$ x 9, Model "W-6," with carburetor, coil, magneto, reverse gear, etc.; complete up to and including coupling, self starter attached.....
Twin 280-360 H.P. each Duesenberg, 8 cyl., 4 cycle, $6\frac{1}{4}$ x $7\frac{1}{4}$ weight 3600 lbs. each, 1000 to 1300 R.P.M., complete with electric self-starters and generators, magnetos, carburetors, reverse gears etc., complete up to couplings..... Original pre-war factory price \$7000 each.	Twin 75 H.P. brand new Remington, each 4 cyl., oil engines (semi-Diesel) with reverse gear, 36 x 36 bronze propellers, bronze shaft, stuffing box, etc., complete.....
250 H.P. Sterling, latest type, Model R, 8 cyl., valve in head, $5\frac{1}{2}$ x $6\frac{1}{4}$ with carburetor, coil, ignition system, complete oiling system, all latest type electric starter and generator, etc.; complete up to and including coupling.....	75 H.P. Craig, 800 R.P.M., 4 cyl., 4 cycle, 1500 lbs., $6\frac{1}{4}$ x 7, with carburetor, coil, reverse gear, etc.; complete up to and including coupling.....
250 H.P. Van Blerck, 12 cyl., 4 cycle, $5\frac{1}{2}$ x 6, with two Bosch magnetos, two Schebler carburetors, reverse gear, etc., complete up to and including coupling.....	75 H.P. Frisbie, 6 cyl., 6 x 6, complete with carburetor, magneto, spark plugs, reverse gear and coupling.....
200 H.P. Wolverine, kerosene (brand new), 6 cyl., 11 x 15, with carburetor, Bosch magneto and coil, electric self-starter, reverse gear, etc., complete up to and including the coupling. Operates on kerosene, guaranteed brand new in perfect condition.....	70-90 H.P. Sterling heavy duty, 6 cyl., 4 cycle, $6\frac{1}{4}$ x 9, late type, with carburetor, coil, magneto, mechanical oiler, spark plugs, air pump, reverse gear, etc.; complete up to and including coupling, one year guarantee, complete with electric self-starter and generator.....
Twin 200 H.P. Sterling, 8 cyl., $5\frac{1}{2}$ x $6\frac{1}{4}$ , Model "F," with carburetors, coil, magneto, electric self-starting outfit, reverse gear, etc.; complete up to and including coupling.....	65 H.P. Scripps, 6 cyl., 4 cycle, $5\frac{1}{2}$ x 6, with carburetor, coil, spark plugs, Bosch magneto, reverse gear, etc., complete up to and including coupling.....
Two 200 H.P. Sterling engines, 8 cyl., 4 cycle, $8\frac{1}{4}$ x 10, Model D, heavy duty, with magnetos, coils, reverse gear, etc., brand new.....	65 H.P. American-British, 6 cyl., 5 x $5\frac{1}{2}$ , complete with carburetor, coil, spark plugs, Bosch magneto, reverse gear and coupling.....
200 H.P. Sterling, 8 cyl., 4 cycle, $5\frac{1}{2}$ x $6\frac{1}{4}$ , with carburetor, coil, reverse gear, electric starting outfit, etc., complete up to and including coupling, one year guarantee.....	Twin 60-75 H.P. Murray & Tregurtha engine, 6 cyl., $6\frac{1}{4}$ x 8, with carburetors, coils, high tension magnetos, reverse gears, etc.; recently overhauled by makers.....
Twin 162-215 H.P. each, Van Blerck, Model "J," 8 cyl., 6 x 6, complete with electric starting and charging outfit, magnetos, carburetors, etc., complete up to and including couplings; practically brand new condition.....	70-90 H.P. Sterling, Model D-4, heavy duty, 6 cyl., $6\frac{1}{4}$ x 9, with carburetor, coil, air pump, reverse gear, etc., complete up to and including coupling, one year guarantee.....
152-200 H.P. Van Blerck, 8 cyl., Model "8M," 1919, $5\frac{1}{4}$ x 6, all complete with carburetor, coil, electric starting and charging outfit, reverse gear, complete up to and including coupling.....	60-70 H.P. Truscott, 6 cyl., 4 cycle, 7 x 9 overhead valve type, with carburetor, coil, high tension magneto, reverse gear, etc.; complete up to and including coupling.....
150-180 H.P. Sterling, Model R, 8 cyl., valve in head, $5\frac{1}{2}$ x $6\frac{1}{4}$ , with Bosch magneto, coil, carburetor, reverse gear, etc., complete up to and including coupling.....	60 H.P. Loew-Victor, 6 cyl., 4 cycle, $4\frac{1}{4}$ x $5\frac{1}{2}$ , with carburetor, coil, electric starting and charging outfit, attached, reverse gear, etc.; complete up to and including coupling.....
135-170 H.P., each Van Blerck, $5\frac{1}{2}$ x 6, Model "E-8," with electric starter, carburetor, coil, magneto, reverse gear, etc.; complete up to and including coupling.....	60 H.P. Lamb, 6 cyl., 4 cycle, $6\frac{1}{4}$ x 7, carburetor, coil, magneto, reverse gear.....
120-170 H.P. Sterling, 8 cyl., 4 cycle, Model F, $5\frac{1}{4}$ x $6\frac{1}{4}$ , with carburetor, coil, reverse gear, electric starter, etc., complete up to and including coupling, one year guarantee.....	Two 60 H.P. Sterlings, 6 cyl., $6\frac{1}{4}$ x 8, with high tension Bosch dual magneto, carburetor, coil, reverse gear; complete back to and including coupling.....
120-160 H.P. Mason Jager, $5\frac{1}{2}$ x 7, enclosed type with Bosch dual magneto and coil, carburetor, electric self-starter and generator, reverse gear, etc., complete up to and including coupling.....	50-65 H.P. Hall, 4 cyl., 4 cycle, $7\frac{1}{2}$ x 10, heavy duty, with carburetor, coil, magneto, reverse gear, etc., complete up to and including coupling.....
114-190 H.P. Loew Victor "Harbeck," 6 cyl., 4 cycle, $7\frac{1}{2}$ x $8\frac{1}{2}$ , with carburetor, coil, Bosch magneto, reverse gear, etc., complete up to and including coupling, with Leeco-Neville 24 volt generator.....	50-60 H.P. Scripps, 6 cyl., 4 cycle, with carburetor, coil, magneto, Bosch electric starter and generator, reverse gear, etc., complete up to and including coupling.....
135 H.P. Sterling, Model R, 6 cyl., 4 cycle, $5\frac{1}{2}$ x $6\frac{1}{4}$ , with carburetor, coil, magneto, electric self-starting and charging outfit, reverse gear, etc., complete up to and including coupling.....	Two 50 H.P. Hitchcock, 4 cyl., 4 cycle, $7\frac{1}{2}$ x 9, with carburetor, coil, reverse gear, AS IS.....
100 H.P. Sterling, Model "B," 8 cyl., 4 cycle, $5\frac{1}{4}$ x 6, with carburetor, coil, spark plugs, reverse gear, etc.; complete up to and including coupling.....	50 H.P. Automatic, 4 cyl., 4 cycle, $7\frac{1}{2}$ x 9, with carburetor, coil, magneto, reverse gear, AS IS.....
100 H.P. Twentieth Century, 6 cyl., 4 cycle, 8 x 10, heavy duty, 325 R.P.M., with reverse gear, carburetor, coil, magneto, air starter, etc., complete up to and including coupling, ready for quick shipment.....	48 H.P. Barber, 4 cyl., 2 cycle, $6\frac{1}{4}$ x $6\frac{1}{4}$ , complete with coil, carburetor, coupling, spark plugs, AS IS.....
90 H.P. Sterling, Model R-I, four cylinder, $5\frac{1}{2}$ x $6\frac{1}{4}$ , with carburetor, coil, magneto, reverse gear, etc., complete up to and including coupling.....	40-50 H.P. Knox, heavy duty, 4 cyl., 4 cycle, 7 x 8, with magneto, coil, carburetor, reverse gear, etc.; complete up to and including coupling.....
With electric self-starter and generator.....	45-65 H.P. Sterling, 6 cyl., 4 cycle, $5\frac{1}{2}$ x 6, with Schebler model D carburetor, Bosch magneto, mechanical oiler, coil, reverse gear, etc., complete up to and including coupling, one year guarantee.....
Twin 90 H.P. Craig, 4 cyl., 4 cycle, heavy duty, 9 x 10, complete with carburetors, coils, magnetos, reverse gears, etc.; complete up to coupling.....	40-50 H.P. Twentieth Century, 4 cyl., 4 cycle, heavy duty, $6\frac{1}{4}$ x $8\frac{1}{2}$ , with carburetor, coil, magneto, reverse gear, etc., complete up to and including coupling.....
90 H.P. Wisconsin, 6 cyl., $5\frac{1}{4}$ x 7, with carburetor, coil, magneto, etc., complete up to and including coupling, just been rebuilt in Wisconsin's own factory.....	40-50 H.P. Hall, 6 cyl., 4 cycle, $5\frac{1}{4}$ x $6\frac{1}{4}$ , carburetor, Bosch magneto, coil, reverse gear.....
85-125 H.P. Sterling, Model F.M., 6 cyl., 4 cycle, $5\frac{1}{4}$ x $6\frac{1}{4}$ , with carburetor, coil, electric starter, reverse gear, etc., complete up to and including coupling, one year guarantee.....	40-50 H.P. Anderson, 6 cyl., 4 cycle, 5 x 6, complete with carburetor, coil, spark plugs, magneto, rear starter, reverse gear, etc.; complete up to and including coupling.....
	Twin 40 H.P. Lamb, Model "R," 6 cyl., 4 cycle, $5\frac{1}{4}$ x 6, weight 1650 lbs., each, with Bosch magnetos, coils, carburetors, reverse gears, etc.; complete up to and including couplings.....
	40 H.P. Sterling, heavy duty, 4 cyl., 4 cycle, $6\frac{1}{4}$ x 8, complete with carburetor, coil, reverse gear, Bosch magneto, etc.; complete up to and including coupling; with one year guarantee.....
	40 H.P. Roberts, 4 cyl., 2 cycle, with carburetor, coil and coupling, AS IS.....

- Description**
- 40 H.P. Ajax, 4 cyl., with carburetor, coil, magneto, reverse gear, AS IS
- 40 H.P. Speedway, 4 cyl., 4 cycle, 6 x 6, with carburetor, coil, Atwater Kent distributor, spark plugs, reverse gear, etc.; complete up to and including coupling
- 35-85 H.P. Sterling, Model "FH" heavy duty, 6 cyl., 5½ x 6½, all enclosed type, with electric starting and charging outfit, carburetor, coil, spark plug, wiring, reverse gear, etc.; complete up to and including coupling, one year guarantee
- Two 32-37 H.P. Standard, 4 cyl., 4 cycle, 6 x 8, carburetor, coil magneto, reverse gear
- 32 H.P. Wolverine, 3 cyl., 4 cycle, heavy duty, 7½ x 9, with carburetor, coil, magneto, reverse gear, etc., complete up to and including coupling
- 30-40 H.P. Brown, 4 cyl., 2 cycle, coil, carburetor and spark plugs, AS IS
- 40-45 H.P. Sterling, 4 cyl., 4 cycle, 5½ x 6, with carburetor, coil, magneto, reverse gear, etc., complete up to and including coupling
- 40-40 H.P. Grant Ferria, 4 cyl., 4 cycle, 6 x 6, with carburetor, coil, Atwater Kent ignition and reverse gear
- 30-35 H.P. Eddystone-Globe, 6 cyl., 2 cycle, with two Schebler carburetors, coil, Atwater Kent distributor, Baldridge reverse gear and coupling, AS IS
- 30 H.P. Kennebec, 3 cyl., 2 cycle, with carburetor and coil, AS IS
- 30 H.P. Lamb, 4 cyl., 4 cycle, overhead valve, latest type, 4½ x 6½, with carburetor, coil, magneto, reverse gear, etc., complete up to and including coupling
- 28 H.P. Campbell, 4 cyl., 4 cycle, 5½ x 6½, with carburetor, coil, Bosch magneto, also Atwater Kent ignition, mechanical oiler, reverse gear, etc., complete up to and including coupling
- 28 H.P. Murray & Tregurtha, 3 cyl., 4 cycle, 6½ x 8, with carburetor, coil, magneto, reverse gear
- Two 25-37 H.P. Craigs, 4 cyl., 4 cycle, valve-in-head, heavy duty, 6 x 7, with carburetor, coil, magneto, reverse gear, air pumps, etc., complete up to and including coupling
- 25-35 H.P. Peerless, 4 cyl., 4 cycle, 5 x 6, with carburetor, coil, magneto, reverse gear, etc., complete up to and including coupling
- 25 H.P. Tuttle, 2 cyl., 2 cycle, with coil, carburetor, spark plugs, etc.; complete up to and including coupling, AS IS
- 24 H.P. Fairbanks-Morse, 4 cyl., 2 cycle, complete with carburetor, timer, coil and coupling, AS IS
- 24 H.P. Lamb, 4 cyl., 4 cycle, 5½ x 6, with carburetor, coil, magneto and reverse gear
- 20-35 H.P. Sterling, 4 cyl., 4 cycle, 4¾ x 5½, late model, with carburetor, coil, Bosch magneto, reverse gear, etc., complete up to and including coupling, one year guarantee
- 20-24 H.P. Gray, 2 cyl., 2 cycle, with carburetor, coil, spark plugs, etc.; complete up to and including coupling, AS IS
- 18-25 H.P. Sterling, 4 cyl., 4 cycle, 4¾ x 5½, with carburetor, coil, magneto, reverse gear, etc., complete up to and including coupling, one year guarantee
- Three 20 H.P. Ralaco, 4 cyl., 4 cycle, 4 x 6, with carburetor, coil, reverse gear, etc.; complete up to coupling
- 24-30 H.P. Twentieth Century, 4 cyl., 4 cycle, 5½ x 7¼, Bosch magneto, reverse gear, etc.
- 18-25 H.P. Sterling, 4 cyl., 4 cycle, 4¾ x 5½, with carburetor, coil, reverse gear, electric self starting and charging outfit attached, etc., complete up to and including coupling, one year guarantee
- 18 H.P. Lackawanna, 3 cyl., 2 cycle, with three carburetors, coil, timer, and coupling, AS IS
- 17-25 H.P. Sterling, Model E-1, 4 cyl., 4 cycle, 4¾ x 5½, with carburetor, coil, magneto, rear starter built in reverse gear, etc.; complete up to and including coupling; guaranteed for one year
- 17 H.P. Fairbanks Ferro, 3 cyl., 2 cycle, with carburetor, coil, magneto, spark plugs and coupling, AS IS
- 17 H.P. Ferro, 3 cyl., 2 cycle, with carburetor, coil, timer and reverse gear, AS IS
- 16-18 H.P. Standard, 2 cyl., 4 cycle, with carburetor, coil, ignition, reverse gear, complete including coupling
- 15 H.P. Fulton, 2 cyl., 2 cycle, with carburetor, ignition, etc., complete up to and including coupling, AS IS
- 15 H.P. Royal, 2 cyl., 2 cycle, with carburetor, coil, reverse gear, etc., to coupling, AS IS
- 15 H.P. Eagle, Model "2-E," 6 x 6½, with reverse gear, muffler, two Schebler carburetors, spark plugs, coil etc.; up to and including coupling
- 14 H.P. Mobawk, 2 cyl., 2 cycle, with carburetor and coupling, AS IS
- 14 H.P. Lathrop, 2 cyl., 2 cycle, with carburetor, coil, Paragon reverse gear, etc., complete up to and including coupling, AS IS
- Two 12-15 H.P. Sterling, Model "C," 2 cyl., 4 cycle, 5½ x 7, with carburetor, coil, spark plugs, magneto, mechanical oiler, reverse gear, etc.; complete up to and including coupling, one year guarantee
- 12-15 H.P. Murray & Tregurtha, 2 cyl., 4 cycle, with carburetor, coil, reverse gear, etc., complete up to and including coupling
- 12-14 H.P. Bridgeport, 2 cyl., 2 cycle, 5½ x 5½, jump spark, with coil, carburetor, oil cups and spark plugs, in running order, AS IS

**Description**

- Two 12-15 H.P. Sterling, Model D, 2 cyl., 4 cyl., 5½ x 7, heavy duty late model, with carburetor, coil magneto, reverse gear, etc.; complete up to and including coupling
- 12-14 H.P. Lathrop, 2 cyl., 2 cycle, with M & B ignition, coil, carburetor, and coupling AS IS
- Two 12 H.P. Automatic, 2 cyl., 4 cycle, 5½ x 7, with double ignition, carburetor, coil, reverse gear, etc., complete up to and including coupling
- 12 H.P. Palmer, 2 cyl., 2 cycle, with carburetor, coil, timer, AS IS
- 12 H.P. Barber, 2 cyl., 2 cycle, with carburetor, coil, AS IS
- 11 H.P. Knox, 2 cyl., 2 cycle, with carburetor, coil, magneto, reverse gear, etc., complete up to coupling, AS IS
- 11 H.P. Ferro, 2 cyl., 2 cycle, with carburetor, coil, spark plugs, and oiling system, AS IS
- 11 H.P. Lackawanna, 2 cyl., 2 cycle, with carburetor, coil, spark plugs; AS IS
- 10 H.P. Fay & Bowen, 2 cyl., 2 cycle, with carburetor, coil and Two reverse gear, AS IS
- 10 H.P. Fulton, 2 cyl., 2 cycle, with carburetor, coil, and ignition, AS IS
- 10 H.P. Stanley, 2 cyl., 2 cycle, with carburetor, coil, reverse gear, etc., complete up to and including coupling
- 10 H.P. Tuttle, 2 cyl., 4 cycle, with 2 vaporizers, coil and coupling only, AS IS
- 10 H.P. Otto, 2 cyl., 4 cycle, carburetor, coil, AS IS
- Two 10 H.P. Sterling Kid, 4 cyl., 4 cycle, 2¾ x 4¾, with carburetor, coil, magneto, oiling system, spark plugs, wiring, reverse gear, etc.; complete up to and including coupling
- 10 H.P. Ralaco, 2 cyl., 4 cycle, 4 x 6, complete with carburetor, coil, magneto, switch, reverse gear and coupling
- 10 H.P. Hubbard, 1 cyl., 2 cycle, with coil and coupling only, AS IS
- 9-12 H.P. Aristocrat, 4 cyl., 4 cycle, 2¾ x 4, with carburetor, magneto, reverse gear, etc., complete up to and including coupling
- 8-10 H.P. Royal, 2 cyl., 2 cycle, with carburetor, coil and coupling, AS IS
- 8-10 H.P. Sterling, 2 cyl., 4 cycle, 4¾ x 6, with carburetor, coil, timer, reverse gear, etc., complete up to and including coupling, one year guarantee
- 8-10 H.P. Palmer, 2 cyl., 2 cycle, with carburetor, coil and reverse gear, overhauled this spring, splendid order, AS IS
- 8-9 H.P. Hettinger, with carburetor, coil, Atwater Kent ignition, reverse gear, etc., complete up to and including coupling, AS IS
- 8 H.P. Eagle, 2 cyl., 4 cycle, with carburetor, coil, reverse gear, complete up to and including coupling, AS IS
- 8 H.P. Ferro, 2 cyl., 2 cycle, with carburetor, spark plugs, independent magneto, AS IS
- 7½ H.P. Buffalo, 2 cyl., 4 cycle, with carburetor, coil, spark plugs, reverse gear, etc.; complete up to and including coupling
- 7½ H.P. Hartford, single cyl., 2 cycle, with carburetor, coil, and coupling, AS IS
- 7½ H.P. Stanley, 1 cyl., 2 cycle, with carburetor and coil, AS IS
- 7-9 H.P. Twentieth Century, 2 cyl., 4 cycle, 4¾ x 5, with carburetor, coil, reverse gear, etc., complete up to and including coupling
- 7 H.P. Fairfield, carburetor, coil, muffler and coupling, AS IS
- 7 H.P. Fulton, 2 cyl., 2 cycle, with carburetor, Perflex waterproof ignition, AS IS
- 6-8 H.P. Tuttle, 2 cyl., 2 cycle, with carburetor, coil and spark plugs, AS IS
- 6 H.P. Mianus, 1 cyl., 2 cycle, with carburetor, coil and coupling, AS IS
- 5-6 H.P. Palmer, 1 cyl., 4 cycle, 5 x 6, with carburetor, coil, reverse gear, etc.; complete to coupling
- 5½ H.P. Detroit, single cyl., 2 cycle, with carburetor, coil and coupling, AS IS
- 5 H.P. Eagle, 1 cyl., 2 cycle, 5 x 6, with carburetor, coil and coupling, AS IS
- 5 H.P. Palmer, single cyl., 5 x 6, two cycle, with carburetor and coil, AS IS
- 5 H.P. Dutton, single cyl., 2 cycle, carburetor, coupling, AS IS
- 5 H.P. Howard, 1 cyl., 2 cycle, carburetor, coil, spark plugs and coupling, AS IS
- Two 5 H.P. Lozier, single cyl., 2 cycle, jump spark, carburetor, coil, spark plug, complete up to and including coupling, AS IS
- 4 H.P. Palmer, 1 cyl., 2 cycle, make and break ignition, coil, carburetor, and coupling, in running order, AS IS
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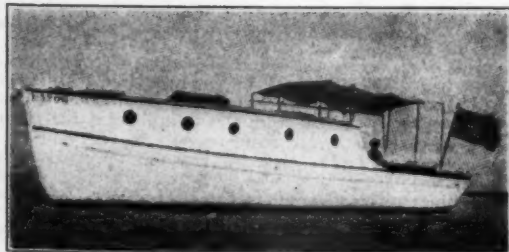
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Henry P. Denglen, M. D., Springfield, N. J.

## Speak and You Shall be Answered

(Continued from page 27)

It is impossible in the scope of such an article to conduct a course in machine shop practice. The amateur will have difficulty in making the white pine patterns for the castings unless he knows how to glue up stock, turn and carve wood. The castings should be of composition (bronze). They cost little more and are far easier to machine. The natural period of vibration of the diaphragm and the number of impulses per second struck by the toothed wheel must coincide. If the horn does not emit a pure tone, a change of discs to one thicker or thinner or a change in the speed of the motor by giving it more or less voltage will bring about the desired result. In service the face of the diaphragm should be covered with a film of grease to exclude rust. Stout wires and a button of good capacity are essential. The disc must be gripped rigidly but must not bind on the edges. It is not so difficult to build as it sounds. Most any power boat owner worthy of the name has a moderate amount of skill—skill being largely a matter of patience and until he buys a small lathe and turns out work of his own creation during those long winter evenings between seasons, he will be missing half the fun of the great game of yachting.

## Yard and Shop

(Continued from page 46)

## F. H. Smith Joins Simms Magneto Co.

Floyd H. Smith recently became associated with the Simms Magneto Co. of East Orange, N. J., as Assistant General Manager. His many years' experience in the automobile and motor industries, particularly with the Pierce-Arrow Motor Car Co. of Buffalo, fits him particularly well for the position he has assumed.

## Bear Cats Shown in New York

Owing to the persistent demand for demonstrations of the Bear Cat runabout, which was on display in a New York show room, it was necessary to launch the boat for demonstration purposes at the Columbia Yacht Club, New York. Mr. Hagar of the Gregory Boat Corp. spent some time in New York assisting Lord Auckland, the New York representative, in showing the boats to interested prospects. He reports that the market looks very promising for the coming season.

(Continued on page 60)

## FREDERICK K. LORD

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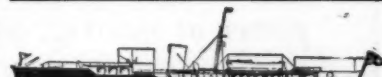
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## FREDERIC S. NOCK

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*This Columbia "Hot Shot" Ignition Battery gives full power at starting, when your engine needs it most*

That's one of the several advantages the Columbia "Hot Shot" Dry Battery has over any substitute that has ever been tried for motor boat ignition.

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KANSAS CITY SAN FRANCISCO

**Columbia  
Dry Batteries**  
—they last longer

## Yard and Shop

(Continued from page 59)

### Handy First Aid Outfit

A compact little outfit comprising an assortment of standard supplies for treating wounds, burns, or poisons is assembled by the Utility Corporation of Virginia and distributed under the name of Utility First Aid Outfit. This is particularly adapted for the use of the camper and boatman, since it is small and readily carried. Its serviceability will appeal to all, since it frequently happens that injuries are received far from sources of help. The cost of one of these outfits is trifling in comparison to the cost of one neglected scratch or cut due to the lack of sanitary protection. A tray containing the first aid requisites is slipped into an aluminum tube closed at each end by an aluminum cup. This can be used as a drinking cup or to heat water for washing a wound. The complete outfit is only 11¾ inches long and 3¾ inches in diameter. A bracket permits of its being fastened in any accessible position.



The compact First Aid Outfit made by the Utility Corporation of Virginia

### The Cornfield Light Race

The Colonial Yacht Club at 140th Street and Hudson River is again planning to hold its long-distance race to and around Cornfield Lightship and return. This event will be open to cruising motor boats of all types from 28 to 60 feet in length. The start will be at 1 P. M. on August 19th and the total distance will be 210 statute miles. The major prize in this race is the famous Hunt trophy, which is held for one year by the club of the winner, after which it must be returned to the Colonial Yacht. Several cruisers in the Colonial fleet have already signified their intention of going in this race, and entries from other clubs are invited.

### Elto Motors Win in Milwaukee

In the first regatta of the 1922 season, a popular race for outboard motor powered boats proved one of the main attractions of the day. Nineteen boats competed and the first, second, third, and fifth boats to finish were powered with Elto Light Twin motors. The interest aroused by this race was tremendous and the competition among the contestants was particularly keen.

### Quicksilver Wins Again

An example of consistency and long life is shown in the fast cruiser Quicksilver. This boat has again returned as the winner in the long-distance race to Pensacola. The 190 miles of this course was covered without troubles, and since this is the third time that this boat has won this race, it gives her permanent possession of the trophy. The engine in Quicksilver is a 200 h.p. Sterling machine installed about six years ago and still going strong and giving good service. The fact that an engine of this age is able to go in a long-distance race of this nature and return a winner is noteworthy.

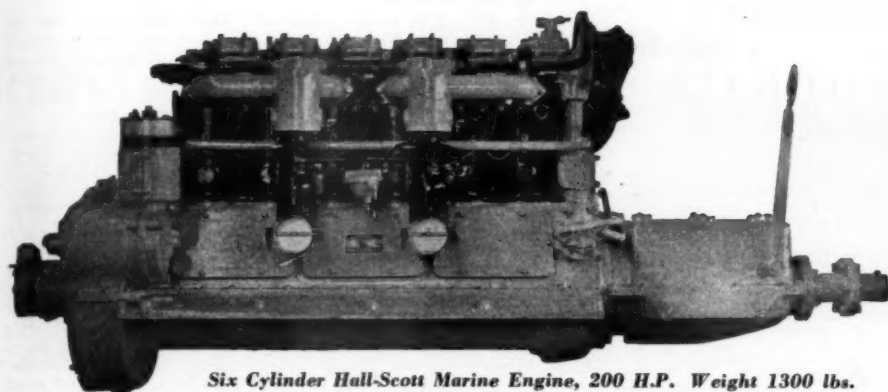
### Firefoam Protection for Leviathan

An installation to provide complete fire protection in the boiler compartments, fuel oil pump rooms and other hazardous stations on board the steamship Leviathan is now being provided. Charles Cory & Son, Inc., of New York, are handling this installation during the reconditioning of this vessel. A careful survey has been made of all points where fuel oil might collect in bilges, etc., and means of distributing firefoam were provided. An important feature of this system is that should a fire become so intense that every man is driven from the compartment the chemicals forming the fire-smothering foam continue to distribute the material from storage tanks. Sufficient capacity is provided to cover the entire exposed surface to be protected to a depth of twelve inches. Since oil fuel, with its many advantages, has come to stay, Firefoam Foamite removes all dangers of fires which sometimes occur from the use of oil on ship board.

(Continued on page 112)

Power Your Boat With a

# —HALL-SCOTT—



**MARINE  
ENGINE**

*Six Cylinder Hall-Scott Marine Engine, 200 H.P. Weight 1300 lbs.*

We invite you to compare Hall-Scott Marine Engines directly with any and every other marine engine in the two vital factors of power and weight. The four cylinder, 125 H.P. Hall-Scott weighs 1100 lbs. The six cylinder, 200 H.P. Hall-Scott weighs 1300 lbs. You will find these engines are much lighter than any other marine engines of equivalent power; you will find them more powerful than other marine engines of similar cylinder displacement.

Actual performances in scores of runabouts and cruisers have demonstrated that nothing is sacrificed in endurance or reliability to gain the light weight and high power. In fact Hall-Scotts have earned the reputation of being the most reliable of any fast-turning marine engines ever built.

Hall-Scott Marine Engines are not mere racing engines, but are built for substantial runabouts and cruisers. They give faster and lighter boats with less fuel expense, and the degree of dependability you expect to find only in a heavy duty engine.

*Write today for descriptive catalogs and actual facts about Hall-Scott installations in boats similar to yours. Mention size and type of boat and present power.*

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### Go Forward, Backward or Stand Still With This Motor



This is the famous Caille Five-Speed Motor—the *only* rowboat motor with a reversible propeller. Speed changes are made by raising or lowering steering handle. Can run boat up to dock fast or slow, stop boat and back away without stopping motor, reversing it or changing its speed. Gives you big launch control in every respect. The



starts with a regular starter—no cranking—no winding up rope as in spinning a top—nothing to do but pull a little handle. The starter does the rest—automatically. Develops 2 H. P. Drives boat 7 to 10 miles per hour or slow enough to troll. Magneto built into flywheel, or battery ignition. Built for strength and durability—not as a lightweight novelty. Dealers wanted.

**The Caille Perfection Motor Company**

48 Caille Bldg.

Detroit, Mich.  
Rowboat  
Motors from  
\$75.00 Up



## Keen Rivalry in Peoria Races

(Continued from page 11)

owned by H. M. Hammer of St. Louis, for the President's trophy. In the 610 and 625 J. Q. G. ranked second. Panhard II, a true runabout, also entered the 1300 class race, but ran only the first lap of the first heat.

An outboard motor race of one heat, Saturday, was won by A. F. Meyer with an Evinrude, covering an unofficial mile in 7.56 and winning the Evinrude trophy. Evinrude, Elto and Johnson motors competed.

Old-timers still in the game and newcomers eager for the fray, has-beens with tales of used-to-be and future winners and losers with promises of things to come, all met and mingled at the regatta and rejoiced in the three days of good sport. Among the officials on the judge's barge were Dr. J. W. Dixon of Burlington and J. W. Sackrider of Chicago, who were starters; Leroy Cook, Chicago; Gerald White, New York; John G. Robinson, Cleveland; A. T. Griffith, Peoria; Warren Cowles, Peoria; E. L. Judson, Jr., New York; Commodore R. H. Daniels and Capt. J. R. Fuller of Peoria, who, as race managers, deserve much of the credit for the smooth running of the affair; W. T. Conover, Pekin, Ill.; Thomas H. Webb, Peoria, and W. H. Parham of New Orleans, La.

Mr. Parham, who is the secretary-treasurer of the Southern Yacht Club of New Orleans, while a newcomer in the Valley, was, perhaps, the most significant figure at the regatta. The organization he represents headed a chain of southern boat clubs recently affiliating with the M. V. P. B. A., and the presence of the Southerner indicated the genuine interest taken by the boatmen of the lower Mississippi in Valley affairs, an interest which seems destined to bring big results in the growth and future success of the association. The invitation he tendered at the annual meeting to hold the mid-winter M. V. P. B. A. meeting at New Orleans is being seriously considered by the M. V. P. B. A. board.

Which is a reminder that motors gave way to voters for a time and a new board of officials was elected at the annual meeting of the association, held at the Illinois Valley Yacht and Canoe Club Sunday morning, and that Mr. Parham was elected to that board. The meeting preceded a dinner tendered delegates and contestants by the local regatta committee. Guests were transported to the club on the government steamer Comanche. Dr. A. C. Strong of Evanston, well known and well liked in the Valley for many years and head of this year's race committee, was elected to the presidency to succeed retiring president Walter B. Wilde of Peoria. Commodore Sheldon Clark of the Chicago Yacht Club was elected vice-president. R. A. Maples was re-elected treasurer and A. T. Griffith secretary. Directors chosen were Dr. J. W. Dixon, Burlington, Ia.; C. P. Hanley, Muscatine, Ia.; N. A. Peterson, Moline, Ill.; retiring president W. B. Wilde and W. H. Parham, New Orleans. An invitation to hold the 1923 regatta at Burlington, Ia., was accepted, so next season will see the speedsters competing on the waters of the Mississippi. Reports indicated that the association had had the most successful year in its history, having added 15 new clubs with a total of some 7,000 men to its membership.

The M. V. P. B. A. regatta was the main feature of an eight-day home-coming celebration in Peoria, which included also a Waterway Convention Monday evening, July 3rd, in which Commodore Sheldon Clark, chairman of the M. V. P. B. A. waterways committee was a leading figure; two evenings of fireworks and gorgeous pyrotechnic display; aquaplane and swimming exhibitions; and four days of rowing events. The last named comprised the annual regatta of the Western Amateur Rowing Association, July 5 and 6, and the annual regatta of the Central States Amateur Rowing Association, July 7 and 8. A large grand stand was erected along the river front, facing what many term the finest and most beautiful water course in the country. On the Fourth the crowds of interested spectators overflowed these accommodations and blackened the shore for many blocks. Watching the put-put wagons streak around Peoria lake is a popular pastime with Peorians, for the city is the home of more than half of the regatta contestants.

The Illinois Valley Yacht and Canoe Club and the city extended hospitalities to the visiting boatmen, while ex-Com. Tom Webb followed his usual custom of playing host at the Sailors' Boarding House, in reality a private dining room at the Creve Coeur Club, where he entertained 40 boating officials and drivers at lunch and dinner daily during the regatta period. At the risk of being trite, we must remark on the ideally perfect weather, for those who came to scorch in the usual Peoria heat remained to praise the gloriously cool breeze which made days and nights of pure pleasure. Surely the weather man is also a boat fan!

Altogether, this last M. V. P. B. A. regatta was a Mighty, Vitally Peppy Boating Affair! Fitch may have been right in his definition of the sport, but who wouldn't dare to be insane enough to share in the joys of motorboat racing?

(A complete Summary will be found on page 64)

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# Mississippi Valley Power Boat Association Regatta

## Complete Summary, July 1-4, 1922, Peoria, Illinois—Course 2 1/2 Miles

The time given opposite each boat shows the results of the first heat in the upper line, and the second heat in the lower line.

(Continued from page 62)

### Class 104—Distance 5 miles: 2 Laps

Place	Boat	Owner	1st Lap	2nd Lap	Total
1	Buddy II	P. Backer, Jr., Peoria, Ill.	7:17 7:33	7:48 8:38	15:05 16:11
2	Cupid IV	J. W. Marcus, Peoria, Ill.	7:30 D.N.F.	7:38 .....	15:08 .....

Buddy II, Mile Trial 26.61 m.p.h.

### Class 151—Distance 5 miles: 2 Laps

Place	Boat	Owner	1st Lap	2nd Lap	Total
1	Margaret III	L. E. Selby, Pekin, Ill.	4:45-2/5 4:43	4:53 5:19	9:38-2/5 10:02
2	Miss Quincy	C. E. Padgett, Quincy, Ill.	5:23 4:54-2/5	5:33-3/5 5:08	10:53-3/5 10:02-2/5
3	Miss Peoria	R. H. Daniels, Peoria, Ill.	5:05 11:31	5:05-4/5 D.N.F.	10:10-2/5 .....
4	Ugly Duckling	H. Godley, Davenport, Ia.	5:58 5:51	6:03-2/5 5:55	12:01-2/5 11:46

Margaret III, Mile Trial 34.95 m.p.h.

### Class 215—Distance 5 miles: 2 Laps

Place	Boat	Owner	1st Lap	2nd Lap	Total
1	Margaret III	L. E. Selby, Pekin, Ill.	4:48 4:47	4:52 5:01	9:40 9:48
2	P.D.Q. VI	A. C. Strong, Evanston, Ill.	5:40-3/5 4:42	5:23-2/5 4:50-2/5	11:04 9:32-2/5
3	Miss Quincy	C. E. Padgett, Quincy, Ill.	5:07-4/5 5:04-4/5	5:17-3/5 5:12-1/5	10:25-4/5 10:17
4	Miss Peoria	R. H. Daniels, Peoria, Ill.	5:46-2/5 4:50	5:27 5:05	11:13-2/5 9:55
5	Ugly Duckling	H. Godley, Davenport, Ia.	6:08 .....	6:10 .....	12:18 .....

P.D.Q. VI, Mile Trial, 35.28 m.p.h.

### Class 320—Distance 5 miles: 2 Laps

Place	Boat	Owner	1st Lap	2nd Lap	Total
1	Cadillac IV	R. Travis, Peoria, Ill.	4:12-2/5 4:48	D.N.F. 4:35	..... 9:43
2	Ethel X	C. P. Hanley, Muscatine, Ia.	4:18-1/5 .....	4:20-4/5 .....	8:39 .....
3	Margaret III	L. E. Selby, Pekin, Ill.	4:52-2/5 5:05	4:54-1/5 4:41	9:46-3/5 9:46
4	P.D.Q. VI	A. C. Strong, Evanston, Ill.	5:11 5:04	5:55 6:01	11:06 11:05
5	Miss Quincy	C. E. Padgett, Quincy, Ill.	5:15 4:52	5:16 5:03	10:31 9:55
6	Van Dyke II	J. E. Walsley, Evansville, Ind.	5:46-4/5 D.N.F.	5:06-4/5 .....	10:53-3/5 .....
7	Miss Illinois	J. E. Barteau, Chicago, Ill.	..... 5:26	..... 5:45	..... 11:11
8	Miss Peoria	R. H. Daniels, Peoria, Ill.	5:40 D.N.F.	5:58-3/5 .....	11:38-3/5 .....

First, Second and Third tie on points with 200 each.

### Class 510—Distance 10 miles: 4 Laps

Place	Boat	Owner	1st Lap	2nd Lap	3rd Lap	4th Lap	Total
1	Cadillac	R. Travis, Peoria, Ill.	4:16 4:40	4:15-4/5 4:43	4:18-1/5 4:44	4:13 4:29	17:03 18:36
2	Janet Virginia	W. Plummer, Jr., Maywood, Ill.	4:24 4:40	4:23 4:43	4:21 4:44	4:18 4:32	17:26 18:39
3	Ethel X	C. P. Hanley, Muscatine, Ia.	4:13 .....	4:18-4/5 .....	4:17-1/5 .....	4:18 .....	17:07 .....
4	Margaret III	L. E. Selby, Pekin, Ill.	4:46 4:48	5:03 4:46	4:57 4:43	4:58-4/5 4:47	19:44-4/5 18:56
5	Van Dyke II	J. E. Walsley, Evansville, Ind.	4:22 D.N.F.	4:34 .....	4:35 .....	D.N.F. .....	..... .....
6	P.D.Q. VI	A. C. Strong, Evansville, Ind.	5:14 .....	4:54 .....	4:56 .....	4:53 .....	19:57 .....
	Miss Quincy	C. E. Padgett, Quincy, Ill.	5:04 4:58	5:11-2/5 5:38	5:10 5:26	5:09-3/5 5:38	20:35 21:40

### Presidents Trophy, Free-for-All Runabouts—Distance 5 miles: 2 Laps

Place	Boat	Owner	1st Lap	2nd Lap	Total
1	Janet Virginia	W. L. Plummer, Maywood, Ill.	4:16 4:21	4:25 4:23-1/5	8:41-4/5 8:44-1/5
2	Panhard II	H. M. Hammer, St. Louis, Mo.	4:16 4:10	4:42 4:17-3/5	8:58 8:27-3/5
3	J. Q. G.	J. Q. Gill, Peoria, Ill.	6:12-2/5 .....	6:25-3/5 .....	12:37 .....
4	Marjorie K	L. R. Kinder, La Salle, Ill.	..... 8:30	..... 8:55	..... 17:45

### Class 705—Distance 10 miles: 4 Laps

Place	Boat	Owner	1st Lap	2nd Lap	3rd Lap	4th Lap	Total
1	Peggy	F. Schramm, Milwaukee, Wis.	3:44-2/5 3:17	3:38-3/5 3:20	3:44-2/5 3:29	3:44 3:48-2/5	14:41 13:54-2/5
2	Meteor III	W. B. Wilde, Peoria, Ill.	3:23-4/5 3:15	3:32 4:31	3:35 4:37	3:41-1/5 4:22	14:12 16:45
3	Black Diamond	Barrick & Webber, Peoria, Ill.	3:43-2/5 3:36	3:48-1/5 4:03	3:46-3/5 3:46	3:46-3/5 3:53	15:04 15:18
4	Pathfinder	V. Barteau, St. Louis, Mo.	4:42-4/5 4:25	4:44-3/5 4:35	4:48-3/5 4:21	4:46-4/5 4:17	19:02-4/5 17:38
5	Do She Go	M. R. Ellis, Peoria, Ill.	6:22-3/5 4:09	4:26-2/5 4:15	4:58 4:17	4:57-2/5 4:18	20:44-3/5 16:59
6	Doc's	Van Sant & Whipple, Peoria, Ill.	3:55-3/5 .....	3:58-2/5 .....	4:00 .....	4:08-4/5 .....	16:02-4/5 .....
7	Sassacus	Waugh & Moutier, Peoria, Ill.	4:23-3/5 D.N.F.	4:51-2/5 .....	4:58 .....	4:50 .....	19:03 .....

Peggy, Mile Trial 49.78 m.p.h.

Meteor III, Mile Trial 49.86 m.p.h.

### Class 940—Distance 10 miles: 4 Laps

Place	Boat	Owner	1st Lap	2nd Lap	3rd Lap	4th Lap	Total
1	Badger Girl	F. Bailey, Peoria, Ill.	3:33 3:20	3:38-2/5 3:30	3:38-2/5 3:29	3:36-3/5 3:32	14:26-2/5 13:51
2	Meteor III	W. B. Wilde, Peoria, Ill.	3:26 .....	3:44-4/5 .....	4:01 .....	4:03-1/5 .....	15:15 .....
3	Do She Go	M. R. Ellis, Peoria, Ill.	4:18 .....	4:24 .....	4:25 .....	4:30 .....	17:37 .....
4	Peggy	F. Schramm, Milwaukee, Wis.	3:37-2/5 3:16	D.N.F. 3:26	..... 3:23	..... .....	D.N.F. .....
5	Doc's	Van Sant & Whipple, Peoria, Ill.	3:54-4/5 .....	3:56 .....	3:55-1/5 .....	8:14 .....	20:00 .....
6	Margaret III	L. E. Selby, Pekin, Ill.	No start 5:38	..... 4:49	..... 4:46	..... 4:52	..... 19:25
7	Black Diamond	Barrick & Webber, Peoria, Ill.	D.N.F. .....	..... .....	..... .....	..... .....	..... .....

### Class 1,300—Distance 15 miles: 6 Laps

Place	Boat	Owner	1st Lap	2nd Lap	3rd Lap	4th Lap	5th Lap	6th Lap	Total
1	Badger Girl	F. Bailey, Peoria, Ill.	3:25 3:17	3:42 3:26	3:42 3:29	3:30-3/5 3:30	3:29-1/5 3:30	3:27 3:27	21:08-3/5 20:39
2	Peggy	F. Schramm, Milwaukee, Wis.	3:21 .....	3:38 .....	3:27 .....	3:31-3/5 .....	3:31 .....	3:28-2/5 .....	20:57
3	Bradley Teck	P. Becker, Peoria, Ill.	3:18 3:18	3:36 .....	3:34-3/5 .....	4:04-2/5 4:43	4:03-3/5 .....	23:19-3/5	
4	Oh Min	H.A. Parsons, Cleveland, O.	4:18 3:14	4:21-1/5 D.N.F.	4:04-3/5 .....	4:16-1/5 .....	3:54-2/5 .....	3:57-2/5 .....	24:52-2/5 .....
5	Betty Jane	L. Merk, Peoria, Ill.	4:49 4:49	6:02 6:02	6:25 .....	5:16 6:03	6:03 6:18	6:18 .....	34:15
6	Do She Go	M. R. Ellis, Peoria, Ill.	5:22 .....	5:04 .....	4:21 .....	4:45-2/5 .....	4:51-3/5 8:31	8:31 .....	32:55
7	Panhard II	H.M. Hammer, St. Louis, Mo.	5:16 .....	D.N.F. .....	..... .....	..... .....	..... .....	..... .....	.....

### Class Webb Trophy—Distance 15 miles: 6 Laps

Place	Boat	Owner	1st Lap	2nd Lap	3rd Lap	4th Lap	5th Lap	6th Lap	Total
1	Miss Chicago	S. Clark, Chicago, Ill.	3:20-2/5 3:17	3:53-3/5 3:44	3:34-2/5 2:53	3:27 2:56-2/5	3:34 .....	3:30-3/5 .....	21:20 12:50-2/5
2	Oh Min	H.A. Parsons, Cleve., O.	3:27-2/5 3:24-2/5	3:47-3/5 3:36-3/5	3:34-3/5 3:26	3:30 3:21-2/5	3:30-4/5 .....	3:30 .....	21:20-2/5 13:48-2/5
3	Peggy	F. Schramm, Milwaukee, Wis.	3:35-4/5 .....	..... .....	..... .....	..... .....	..... .....	..... .....	..... .....

Miss Chicago, Mile Trial 66.17 m.p.h.


### Class Runabout 610—Distance 5 miles: 2 Laps

Place	Boat	Owner	1st Lap	2nd Lap	Total
1	Janet Virginia	W. L. Plummer, Maywood, Ill.	6:32 .....	5:27-2/5 .....	11:57-2/5 D.N.F.
2	J. Q. G.	J. Q. Gill, Peoria, Ill.	..... 6:45	..... D.N.F.	..... .....

Janet Virginia, Mile Trial 37.78 m.p.h.

### Class Runabout 625—Distance 5 miles: 2 Laps

Place	Boat	Owner	1st Lap	2nd Lap	Total
1	Janet Virginia	W. L. Plummer, Maywood, Ill.	6:13-1/5 6:06	6:24-4/5 6:19	12:38-3/5 12:25
1	Janet Virginia	W. L. Plummer, Maywood, Ill.	6:13-1/5 .....	6:24-4/5 .....	12:38-3/5 .....
2	J. Q. G.	J. Q. Gill, Peoria, Ill.	6:24-4/5 6:09	6:27-3/5 6:18-3/5	12:52-2/5 12:27-3/5
3	Marjorie K	L. R. Kinder, La Salle, Ill.	..... 8:38	..... 8:49	..... 17:27

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## Hippocampus Renews Her Youth

(Continued from page 17)

except the swell that swamped her, I looked at Jo in some trepidation and asked,

"Are you afraid?"

"Not," she replied, "if Captain Kariger says it is safe to sail here."

So the next morning I cornered the man who knows more about Central American waters than any other pilot or captain on the isthmus and told him of the tragic demise of the spic sailors.

"Is the same thing likely to happen to us?" I concluded.

"Certainly it is," Kariger replied. "If you anchor in nine feet of water and leave only a parrot and a marmoset awake as lookouts."

"We're not likely to do that," I ventured, "as we'll have no pets with us. But how about the tug I hear of that foundered in a sudden squall at the entrance to Colon? Does that sort of thing happen often in the Caribbean?"

"Not more than once per boat, and then only with the wrong kind of boat. But you take Hippocampus or a native cayuco, manned by San Blas Indians, and either of 'em will live through the worst squall that ever blew in these waters."

This reminded me that we have been told by various and sundry persons that the rainy season is the worst time of year in which to cruise in the tropics, and from Captain Kariger I forthwith gleaned some enlightening information on the weather topic. Some of it I had already adduced from my last summer's experience, but I was glad to have the captain's verification of my views.

During the summer months, which happen to be part of the isthmian rainy season, there is less wind flying around loose than there is in winter. The same is true in more northerly latitudes. Here the trades blow with daily regularity and sometimes give place to contrary land winds, or calms, or sudden squalls—but high winds are almost unknown.

In June, July, and August the rain falls in varying quantities, but it is what is locally known as "nice dry rain," and showers are succeeded by brilliant sunshine which dries sails and decks almost as soon as it touches them. The heat is a damp heat, which mildews clothes and leather, and places "dry closets" among the foremost necessities of Canal Zone existence, but it is not by any means insufferable. I have been hotter and stickier in New York in March than I have been in the tropics in mid-summer.

So far as painting operations aboard Hippocampus are concerned, we might be in the height of the rainless season. Showers come and go, but if they come to-day at nine in the morning we may expect a clear afternoon. If the daily rain holds off till noon the new schedule holds good for two or three days. Under such a program painting and varnishing goes forward with fewer interruptions than occur during the fitting-out period at home.

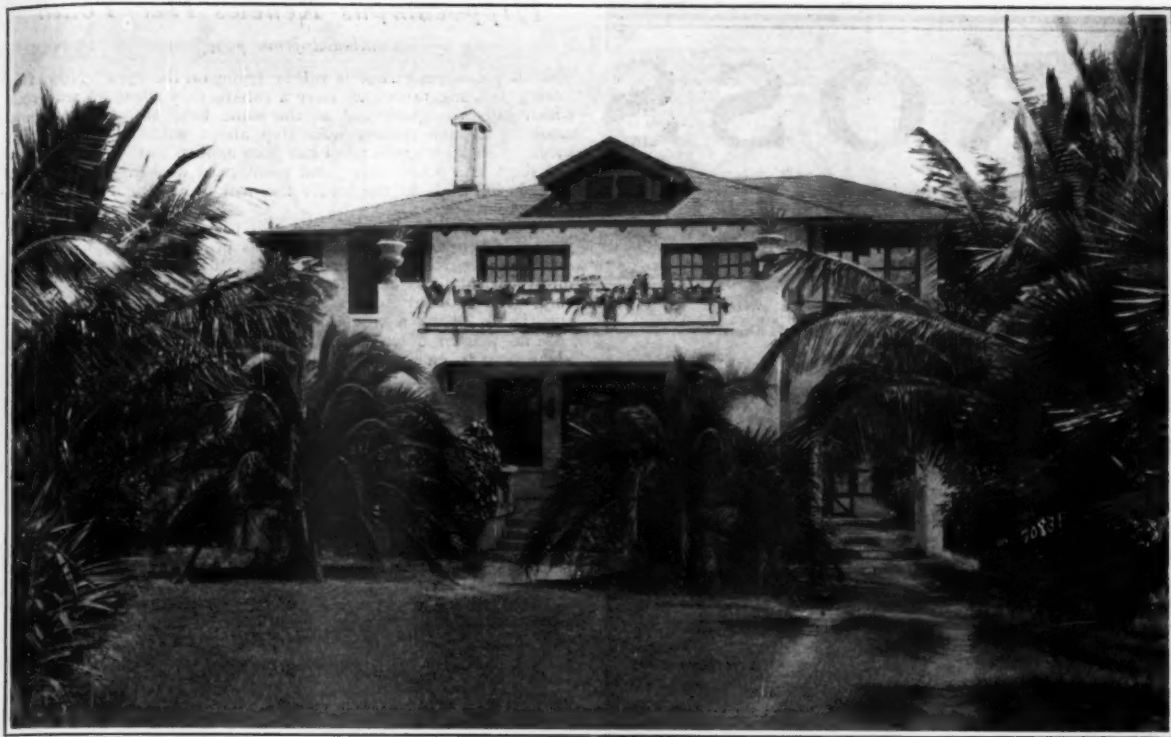
On the second day after commencing work, the boat was hauled clear of the water by a derrick belonging to the lighthouse department of the canal. While she swung from two slings Jo and I, manning a panga, or flatbottomed rowboat, got beneath her and washed the slime from the hull. In so doing we discovered that the bottom was no whit impaired by its nine months' submersion in fresh water. Electrolysis had formed encrustations on the wood in spots where bronze bolts or screws come close to the outer surface, but this scale brushed off, while there were no ravages from plant or insect life. In salt water, had Hippo been moored there, we should have read another story in the planking of the hull. But it is a providential circumstance of tropical zones that no life which is destructive to wooden hulls exists in fresh water.

With the bottom dry, we turned to with bronze paint, which I had imported especially for the purpose (since, although invaluable here, it is almost unknown). In the application of this I had a pleasant surprise. Last summer, painting the bottom on a hot, dry day in Jamaica, we barely got one coat down with five quarts of paint. Here, on a damp day, between intermittent showers, Jim, the Nicaraguan, and I, painting rapidly, completely covered the hull with two and a half quarts. So I should like to advise any one who contemplates repainting with bronze this summer to choose a foggy day and save from \$5 to \$10.

After the boat was lowered again we set to work with sandpaper on the masts, coaming and rubstreaks, and when they were fairly presentable they were given a long drink of raw linseed oil. Next in order was a priming coat of oil and white lead on the canvas deck, and this had a surprising effect on the floor of the cockpit. The concoction dried sticky, as might be imagined, and, happening to stand still for a minute or so in the cockpit, I found when I moved my feet that they brought away the paint down through the layers of successive years to the bare canvas. Instead of a primer, my home-made composition had served as a paint remover, and I embraced the opportunity to get busy with scraper and remove all the old paint from the cockpit.

Hitherto, the deck has been painted a salmon that shows up

(Continued on page 68)



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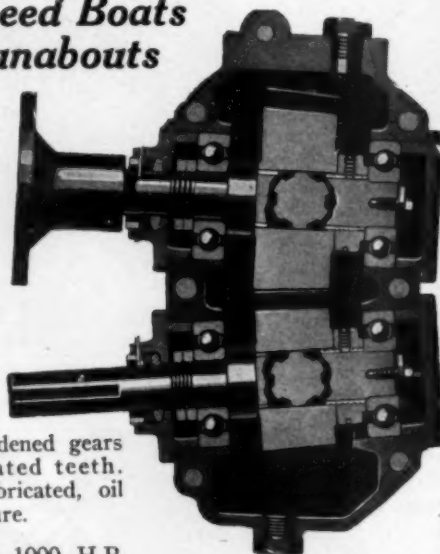
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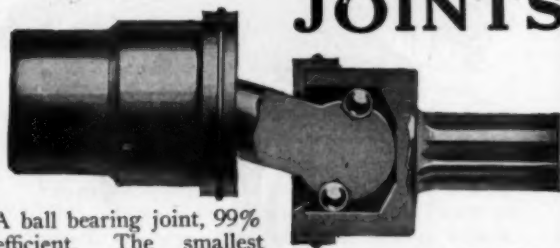
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## Hippocampus Renews Her Youth

(Continued from page 66)

well in photographs but is rather trying on the eyes. Now, following Jo's suggestion, we have a satisfactory shade of sea green which kills the glare and at the same time absorbs footprints made by casual visitors who step about without wiping their shoes. The same green paint has been applied to the wire shrouds and stays as a preservative, and when, next week, the little Hippo spreads her sails to the trades she will be a symphony in white and green.

At this writing the sides are still to be painted and the sails yet to be bent on. But the work has progressed day by day, Jo and I working from nine to six or thereabouts and parrying many interested inquiries as to the identity of master and mate aboard ship. Most Canal Zoners with whom we have talked express surprise at seeing a woman work on a boat.

"The women down here," they say, "never work at all, let alone turn to on a boat. Once they get the house slicked up in the morning you'll find them sitting around a bridge table until it's time to come home and get another meal."

But Jo says she'd rather swing a paint brush and have visible evidence that she has accomplished something than one-step a broom around an apartment and get no credit for her work. And so it is with me. I'd much rather swish paint all day than spend an hour with vise, wrench, and kerosene putting a rusted turn-buckle in working order. But no matter how it may be in conventional life, it is the unobtrusive details which are most necessary and unpleasant in fitting out a boat, and I am still postponing with dread the hour of climbing into bilge to pour oil into the reverse gear.

Yet there is a redeeming feature to all activities connected with small-boat cruising. Work is still work, but it is pronounced play. Show me any other sport that takes all one's time and attention, occupies one's waking and sleeping interest, and is fun from beginning to end, and I'll still rank it as second in enjoyment to boating. We have been at it for ten days and the boat hasn't stirred ten feet from the lighthouse depot, but with each passing day we relish the work more.

Our itinerary is still somewhat indefinite, but it contemplates cruises on both sides of the isthmus within a radius of two or three hundred miles. Last fall when the two Joes and I found that we could not buck the calms and contrary winds of the Pacific and arrive in Frisco during the prime of our lives, I decided definitely not to make the effort at a later date. This year Jo and I are, in a sense, short-handed, and as there will only be two of us to stand watches it would be folly to plan more than three-day cruises.

But Squibb is beckoning to us from Cartagena, Colombia, which lies a matter of two hundred and eighty miles from here. He writes that the South American city in which he makes his headquarters is called La Heroica because it takes a hero to live there. But he adds that it is worth visiting if for no other reason than experiencing the pleasure of leaving it. So thither Hippocampus will shape her course upon quitting the canal and entering the blue waters of the Caribbean.

Along the way—or perhaps on the return trip—we promise ourselves the pleasure of stopping at the San Blas country, about which much is said and little seems to be known. Suffice it here to set down that the San Blas are a tribe of Carib Indians whose blood has never been diffused with the blood of other Indians or white men. They are a small (numerically and physically) aggressive clan of sailors, living in certain of the islands which fringe the coast a hundred-odd miles to south and east of Colon, and they acknowledge no masters, whether of Panama, the United States, or the League of Nations.

All the women folk of the tribe wear rings in their noses, and it is the belief and hope of the American husbands of the Canal Zone that with these rings the bucks tie their spouses to trees to keep them from spending money in the Hindu shops of Colon. However true this may be, it is not the strangest thing we have heard of tropical life. We hear of scorpions, centipedes, and tarantulas that lurk in dark places to hop out and sting the hand that disturbs them, and we learn of the worst malaria epidemic in years being stopped by executive order of the Canal governor.

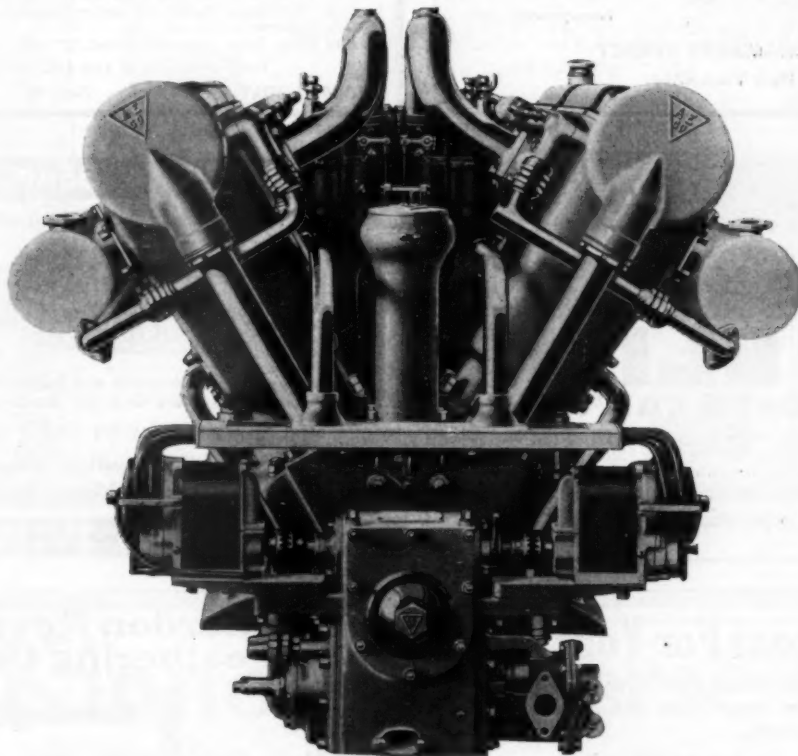
We are told that the harmless looking, diaphanous Portuguese men-o'-war which seem to drift like fairy barges can heat into the wind with the certainty of a pirate's barque, and that contact with their poisonous streamers is more to be avoided than sharks' teeth. We are informed, moreover, that there are pestiferous insects in the jungle known as screw flies that bore into your anatomy and work clear through to the other side if you're not good and careful. These and many other horrors of the tropics are served up by lugubrious friends, but still we keep our enthusiasm.

Talk and the trade wind are cheap, and even gasoline is only thirty cents a gallon; and I stoutly maintain that the only drawback to our chosen cruising grounds is their distance from New York.



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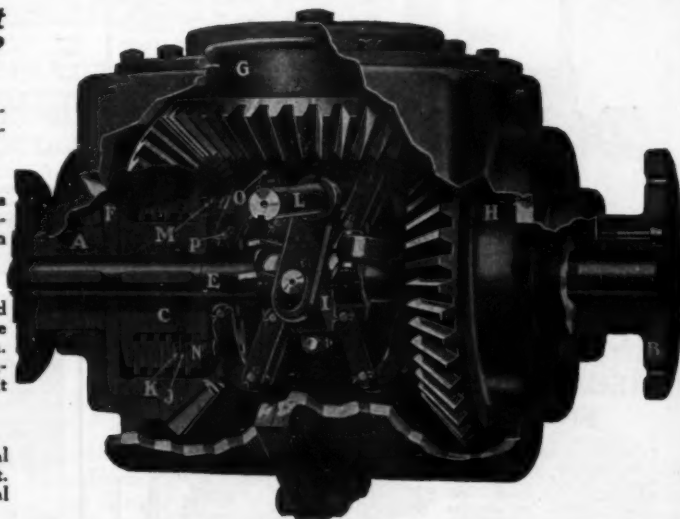
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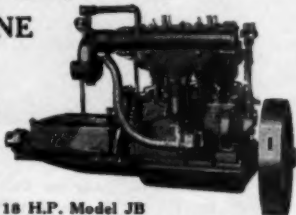
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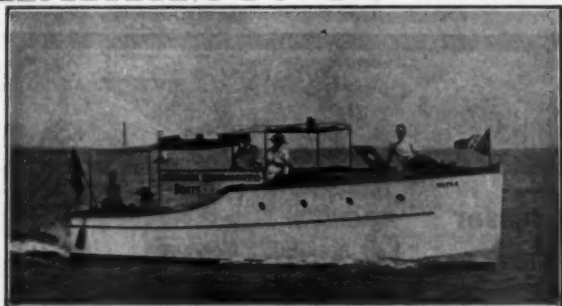


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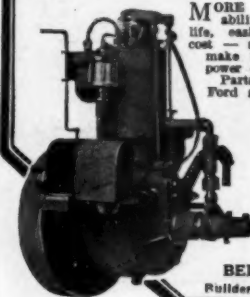
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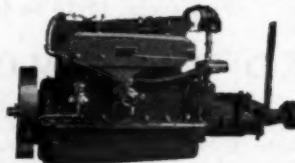
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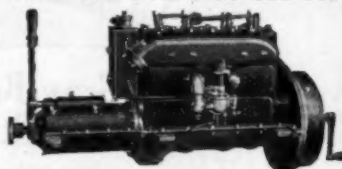
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10 passengers  
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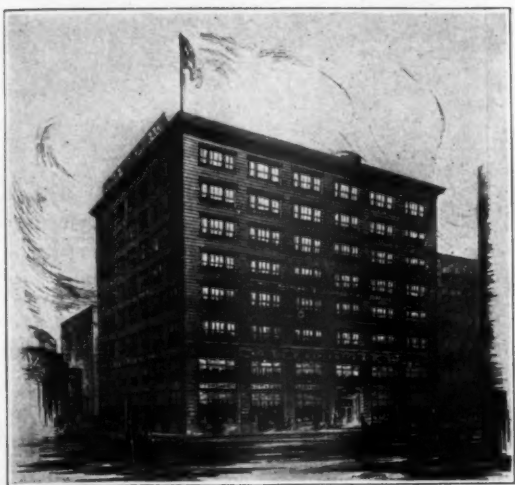


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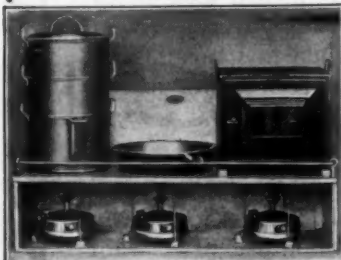
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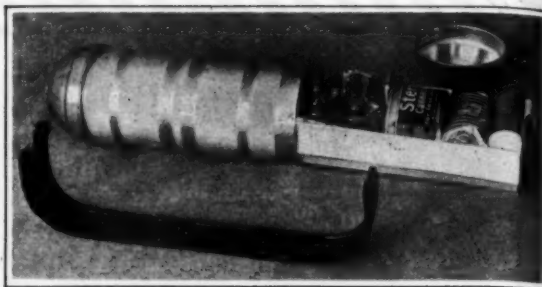
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For Screw  
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PEERLESS Marine Motors have proved it isn't necessary to pay a fancy price to get a satisfactory power plant. 5 to 50 H.P. for medium and heavy duty, suited to all types of boats. You will find them in classy runabouts, in big cruisers and hard working fish boats.

Let us tell you the size, power, dimensions and price of the Peerless most suitable for your boat.

Write today for latest catalog, giving dimensions and details of your boat.

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## A REAL BOAT FOR REAL FISHERMEN



### The MOTO-ROW \$250

MAKE your vacation a real outing by owning a MOTO-ROW. Here is the greatest boat value ever offered—a combination power and rowboat of ideal design and construction for fishing, hunting and pleasure purposes, at less cost than an outboard makeshift.

Built of selected airplane spruce, copper riveted, and equipped with a dependable 2-H.P. motor protected from weather and theft beneath the stern deck, the MOTO-ROW offers you something distinctly new and practical. Dimensions 16 by 4 ft., speed 7 M.P.H., capacity six persons. Supplied with reinforced skeg, which permits beaching without injury to propeller. Salt water equipment \$25 extra. Built by Sydney McLouth, Marine City, Michigan. Write for illustrated catalog.

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## AMERICA'S FINEST RUNABOUTS PROPERLY DESIGNED HONESTLY BUILT

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### 26-Foot Special Runabout

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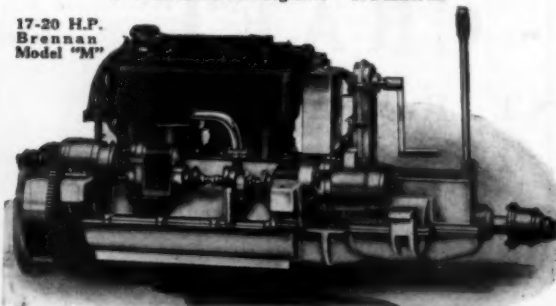
Arrangement has been made with Fellows & Stewart, of Wilmington, Calif., to build 26-foot Standardized Boat in California.

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at a New Price

Prices Reduced Again. No Extras

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Brennan  
Model "M"



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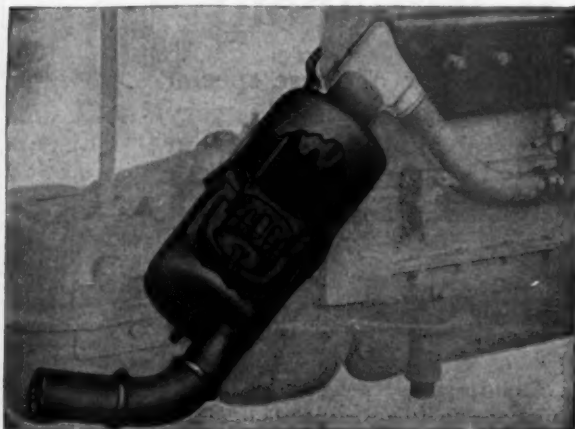
The Brennan is a complete power plant with two unit electric lighting and starting system, and every other accessory built in. No extras required as our equipment embodies a complete outfit. This applies also to the Brennan Model B medium duty 25-35 H.P., and the Model B high speed type 35-40 H.P.

At our new reduced prices this completely equipped motor, including electric starter, costs you no more than an ordinary motor without equipment.

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## SILENCE your MOTOR EXHAUST

without loss of power from  
BACK PRESSURE

The Tvedt Adjustable Marine Muffler will do this.

Adjusted with the motor in actual operation. Motor Tests have conclusively shown absolutely no loss of power or speed when using this muffler.

Write for Descriptive Catalog and help to eliminate in your harbor the nuisance of motor exhausts.

Built in sizes for 1 1/4 to 5" exhaust connections.

**TVEDT-SMITH CO.**

Worcester, Mass.

New York Office,

103 Franklin St.

## Milwaukee Placed on Racing Map

(Continued from page 26)

second, finishing the ten-mile course 23 seconds after Peggy II had finished.

The 1300-cubic-inch hydroplane class brought out four starters, the ten-mile race being won by Miss Rosita, owned by E. R. Blakely of Milwaukee. Her time was 13 minutes and 8 seconds.

The Free-for-All hydroplane race of fifteen miles brought out the greatest number of starters of the day. As was expected, Baby Sure Cure, owned by Paul Strassburg of Detroit, took first prize, completing the fifteen miles in 18 minutes and 45 seconds, which is at the rate of 48 miles an hour, the fastest event of the day also.

In the Free-for-All runabout race of fifteen miles the winner was Viroling, owned by Robert Ringling. Gar Wood of Detroit drove Viroling with Mr. Ringling and had no trouble in winning in 22 minutes and 15 seconds, which is at the rate of 40 1/4 miles an hour.

See-Gar, owned by Gar Wood and driven by Webb Jay of Chicago, finished second, completing the course at a speed of 40 m.p.h. Viroling was built by the Great Lakes Boat Building Corporation from designs by Walter Beauvais for Mr. Ringling and was used by him last winter on the west coast of Florida. This craft, which is capable of speeds of better than 50 m.p.h., was not obliged to exert herself to win at Milwaukee. See-Gar is a 26-footer, powered with a six-cylinder 300 h.p. motor and her running and performance showed the possibilities of boats of this type powered with high powered motors. See-Gar was easily handled at speeds as low as 10 m.p.h., but when a speed of better than 40 m.p.h. was desired, it was readily attained instantly by opening the throttle. This boat could be turned around in her own length at full speed and showed no heeling effect whatsoever from the torque, which in times past used to prove so noticeable and dangerous in small craft in which was installed what was then supposed to be an excessive amount of power. The performance of See-Gar demonstrated the possibilities of a 26-footer for speeds between 40 and 50 m.p.h. The boat planed prettily and showed herself to be under absolute control of the helmsman at all times and in all conditions of sea.

A complete summary of the results follows:

EXPRESS CRUISERS—RACE AROUND LIGHTSHIP; DISTANCE NOT KNOWN			
Boat	Owner		Time
Miss Liberty II	Humphrey Birge		27:47
Great Lakes	Great Lakes Boat Building Corp.		21:53

### OUTBOARD MOTOR BOAT RACE—2 1/4 MILES; 19 STARTERS

Boat	Owner		Time
First	No. 20	Edwards and Pohl	18 m. 18 sec.
Second	No. 6	F. W. Young	20 m. 50 sec.
Third	No. 5	H. A. Nelson	20 m. 51 sec.

### 151 CU. IN. CLASS HYDROPLANES—5 MILES; 2 LAPS

Boat	Owner	1st Lap	2nd Lap	Total
Miss Peoria	Dr. R. H. Daniels	4:37	4:42	9:19
Margaret	E. Selby	4:42	4:47	9:29
Miss Quincy	C. E. Padgett	4:47	4:52	9:39
Miss Illinois	J. E. Barreau	4:47	4:52	9:39

\* Did not finish.

### 625 CU. IN. RUNABOUT CLASS—10 MILES; 4 LAPS

Boat	Owner	1st Lap	2nd Lap	3rd Lap	4th Lap	Total
Janet-Virginia	Walter Plummer	4:53	9:53	14:48	19:41	44:35
Arab VI	Ralph A. Sidway	5:02	10:00	15:09	20:38	45:49
Sally IV	Stuart Auer	8:53	17:43			

\* Did not finish.

### 320 CU. IN. HYDROPLANE CLASS—5 MILES; 2 LAPS

Boat	Owner	1st Lap	2nd Lap	Total
Cadillac IV	Rollen Travis	5:06	9:51	14:57
Miss Quincy	C. E. Padgett	5:00	9:56	14:56
Margaret	E. Selby	5:12	9:59	15:11
Miss Peoria	Dr. R. H. Daniels	5:19	10:10	15:29
Van Dyke II	J. E. Wamsley	5:17		

\* Did not finish.

### 705 CU. IN. HYDROPLANE CLASS—10 MILES; 4 LAPS

Boat	Owner	1st Lap	2nd Lap	3rd Lap	4th Lap	Total
Peggy II	Fred Schram	3:16	6:34	9:50	13:05	32:05
Black Diamond	Barrick & Weber	3:29	6:49	10:09	13:28	33:15
Meteor III	Walter B. Wilde	3:57	7:47	11:36	15:39	38:59
Janet-Virginia	Walter Plummer	4:16	8:26	12:36	16:44	41:42

### FREE-FOR-ALL—15 MILES; 6 LAPS

Boat	Owner	1st Lap	2nd Lap	3rd Lap	4th Lap	5th Lap	6th Lap	Total
Viroling	R. Ringling	3:46	7:30	11:15	14:55	18:38	22:15	74:39
See-Gar	Gar Wood	3:50	7:33	11:16	15:01	18:45	22:26	78:51
Janet-Virginia	W. Plummer	4:28	8:40	12:51	17:05	21:21	25:50	86:36

### 1300 CU. IN. HYDROPLANE CLASS—10 MILES; 4 LAPS

Boat	Owner	1st Lap	2nd Lap	3rd Lap	4th Lap	Total
Miss Rosita	E. B. Blakely	3:22	6:39	9:57	13:08	32:26
Badger Girl	Finley Bailey	3:18	6:36	9:57	13:14	32:25
Black Diamond	Barrick & Weber	3:39	6:56	10:18	13:44	34:37
Oh Min.	H. A. Parsons	3:25	6:46	10:09	13:44	33:44

(Continued on page 96)

# QUALITY SNAP RINGS

*Easy to Install  
Quick Seating  
Long Lived  
Accurate*



"Cast  
to Last"

THOSE Dealers who insist upon their customers receiving the best possible values, and who depend upon repeat business in preference to one-time orders, are the type of Dealers who will enthusiastically push QUALITY Piston Rings because of the rare combination of Quality and Price.

More Than a  
Million a  
Month



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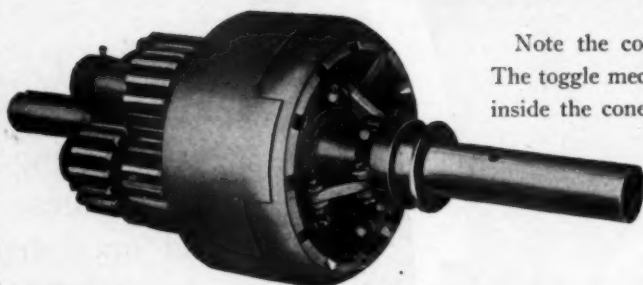
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*the smoothest, most powerful,  
durable and trouble-proof  
marine clutch*

is used only in the  
**STANDARD  
Reverse Gear**

"It wears in—  
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The Secret of Multi-Cone efficiency lies not only in the great friction surfaces of the big cones, but in the fact that these surfaces are at the point of greatest diameter. This increases their leverage and thereby increases the holding power of the clutch.



Note the compactness of this clutch. The toggle mechanism is out of the way, inside the cones. The Multi-Cone picks up the load smoothly and releases instantly. Easy to adjust or take apart.

The 1922 Standard Reverse Gear with the new Multi-Cone Clutch is keeping our factory busy day and night to meet the demands of boatmen. Old timers know that the satisfaction any gear can give depends on the efficiency of its clutch. And everybody recognizes in the Multi-Cone the most practical design possible for a marine clutch.

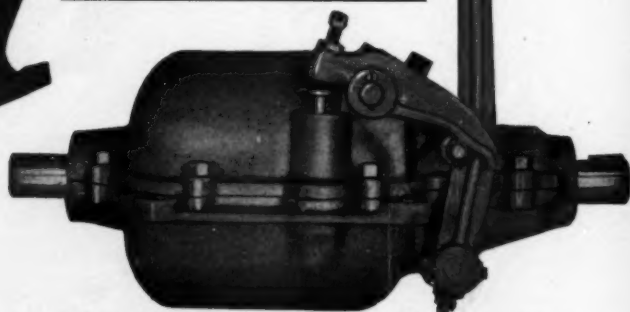
And add to this a perfect reversing mechanism, running in oil and completely enclosed in a handsome oil-tight case. No wonder the Standard is so popular.

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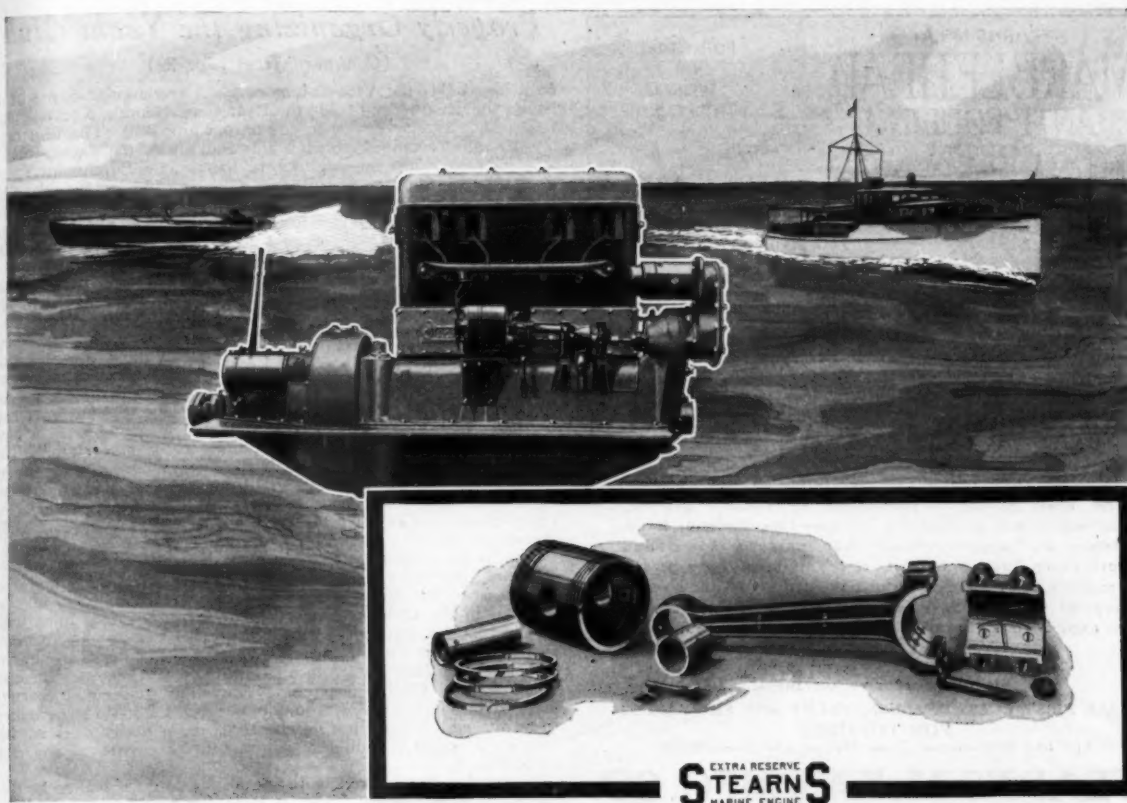


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Entirely Enclosed  
**\$100 COMPLETE**



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MARINE ENGINE

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The connecting rod is made of .40 carbon steel heat treated to give maximum strength. The connecting rod cap is held in place by four  $\frac{1}{2}$ " chrome vanadium steel heat treated bolts and special extra long nuts.

The wrist pin end of rod holds a bronze bushing. The size of the wrist pin is such as to insure long life. It is  $1\frac{3}{8}$ " in diameter and is made of seamless steel tubing, hardened, ground and polished.

Individually these factors of good design add but little to the manufacturing cost, but contribute much to the consistent reliable performance.

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It is extremely annoying to the owner of any pleasure craft, to find that there is a speed at which he cannot drive his motor, without creating excessive vibration.

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The balancing should be done by the manufacturer of the engine, before it is installed; if he did not, we can arrange to do it for you.



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## Properly Organizing the Yacht Club

(Continued from page 29)

on a blue field; the Vice-Commodore's a rectangular flag with a similar device on a red field; the Rear Commodore's, a rectangular flag with a similar device in red on a white field. The fleet captain's flag is rectangular with a blue foul anchor on a white field."

Some clubs adopt the flag officers' flags of the Larchmont Yacht Club. In this club the Commodore's flag is a blue rectangular flag with three white stars in a horizontal line; the Vice-Commodore's is the same as the Commodore's, substituting a red for a blue field; and the Rear Commodore's is the same as the Commodore's, substituting a white for a blue field and blue for white stars.

Some clubs adopt as their flag officers' flags, a combination of their club flags, changing the colors so that blue will be used for Commodore, red for Vice-Commodore and white for Rear Commodore, and making use of three, two and one star. For example: the club flag of the Manhasset Bay Yacht Club is described as "a pointed burgee, red ground, with two white chevrons, the point of the first chevron being one-fourth of the width of the burgee from the base, the second to be one-half." The Commodore's flag for this club is described as "rectangular in shape, with a blue field with one white chevron containing three blue stars." The Vice-Commodore's is the same as the Commodore's, substituting a red for a blue field with two red stars contained in a white chevron. The Rear Commodore's is the same as the Commodore's, substituting a white for a blue field with a red chevron containing one white star.

The by-laws should contain a provision defining yacht ownership and the rules governing same. Generally speaking, any yacht owned wholly or in part by a member of the club may be enrolled in the club fleet upon her owner or owners filing with the Secretary a description of the yacht, her dimensions, etc. Any yacht enrolled in the club which is chartered to other than a member should be debarred from all rights and privileges of the club during the time she is so chartered. A member of the club chartering a yacht which does not belong to a member, should be permitted to fly the club burgee, but no chartered yacht which does not belong to a member should be allowed to take part in any club regatta.

Every club should have a distinguishing night signal to be displayed at its clubhouse. This is generally made up of combinations of red, white and green lights or lanterns displayed from the club flag staff. Some clubs adopt a flashing light as its distinguishing night signal, which arrangement is a very good one, as a flashing light usually leads to less confusion than a fixed one on account of being more dissimilar to other existing lights on shore.

(To be continued)

## Flapper, a Sporty 18-Foot Runabout

(Continued from page 32)

any. The bulkhead end of 9/16-inch to align with bottom of coaming. The after coaming to be of 3/4-inch stock. The balance of bulkhead is to be 9/16-inch and to be made in three sections. It is to be backed on a 3/4-inch cleat to be fastened to beam and engine stringers. The sections are to form a panel and to have a 3/4-inch nosing piece. There will be a seat front and back of 3/4-inch stock to be cleated with 3/4-inch. Tops are to be 3/4-inch with removable pine tops, which shall also be cleated. Seats are to extend from side to side of the boat. Flooring will be of 3/4-inch white pine to be laid thwartships in cleated sections with a support on each outside. The flooring forward of the seat is to be made in three removable sections and screw fastened, making a necessary housing over the clutch. It is to have a cowl of 3/4-inch stock supported with a framing, as indicated on the plan. The sides in the cockpit should be well finished and painted or varnished. Lattice work about 3/8 by 3-inch may be used, allowing about 3/4-inch space between. All cockpit finish is to be of mahogany, except where otherwise specified. The after seat is to be of the open type with a mahogany front and pine top. It is to have a cleat on each side as well as a supporting post. It will have a paneled end to cover opening under the after deck. This will be 3/4-inch thick and be held in place with screws or turn catches.

Fender: There will be a 1 1/4-inch half round mahogany or white oak fender. It is to be tapered slightly on each end and securely screw fastened. Holes are to be counterbored and wood plugged.

Painting and Finishing: The entire hull is to be thoroughly dressed and sanded. The chine and bottom seams are to be lightly caulked. It will then have a coat of hot oil 2/3 of boiled linseed and 1/3 turpentine inside and out up to the water line. Seams are to be filled with composition of dry lead powder mixed with spar varnish to the consistency of putty. It is to have a

(Continued on page 88)

35 Lbs.  
Complete.

## A Wonder on the water as well as on the land

People marvel at the light weight of the Johnson Twin Cylinder Motor—only 35 pounds complete. Such comfort in carrying an outboard motor was never before thought possible. A 12-year-old boy or girl handles it easily. It takes apart for convenience in packing in a handy carrying case. The whole outfit slides under a Pullman car seat. So on land the Johnson surpasses all others in portability.

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You will find the Johnson Twin just as superior there as on land. The greater ease in starting, the more perfect control, the wider speed range, the complete freedom from shaking vibrations, the silence-approaching sound of its humming motor, the instant reverse that stops your boat at full speed in its own length, the total absence of troublesome batteries and mixing valve, the self-tilting and self-righting propeller, the matchless dependability of this motor on all occasions; and above all, its greater sturdiness and stamina in spite of its light weight—see all these things for yourself in the Johnson. Handle it for yourself—compare with any other on land or on lake, and you will quickly see why discriminating outboard motor buyers are no longer satisfied with anything less than the Johnson offers.

Write for free Catalog Folder and name of dealer near you who will gladly demonstrate the Johnson.

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Sept. 12—Q. M. SUPPLIES—Camp McClellan, Ala., Auction. For catalog write Q. M. S. O., Candler Warehouse, Atlanta, Ga.

Sept. 15—Q. M. SUPPLIES—Camp Meade, Md., Auction. For catalog write Q. M. S. O., 1st Ave. & 59th St., Brooklyn, N. Y.

Sept. 19—Q. M. SUPPLIES—Camp Lewis, Wash., Auction. For catalog write Q. M. S. O., Ft. Mason, San Francisco, Calif.

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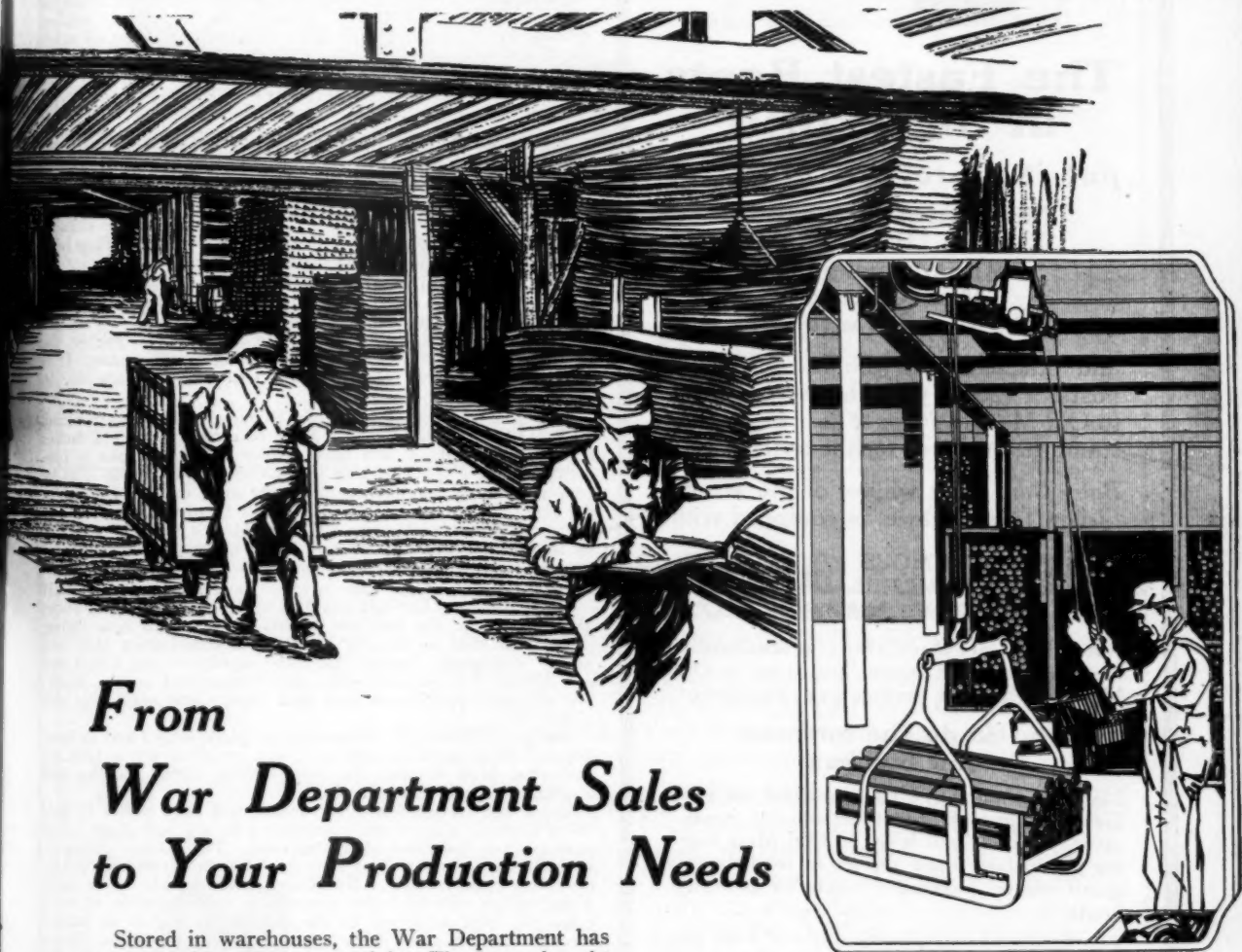
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The list of sales at the left is an index to offerings of materials you will want to investigate. Detailed advertisements of each sale will appear regularly in this publication and in other representative journals. Follow these advertisements and discover the benefits of the War Department as a source of supply. Check up the advertisements with this list and make sure no offerings are overlooked.



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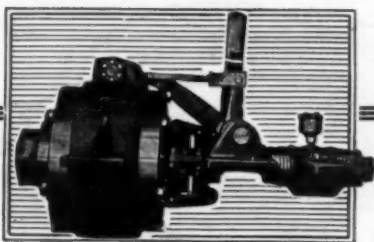
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## The Fastest Boats in the World

*put it up to Old Man Joe*

Misses America I and II  
The five Misses Detroit  
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and practically all the fastest racing boats of recent years have "put it up to Old Man Joe" for a gear that could stand the strain of terrific speed.

*Baby Gar*, twice winner of the Wood-Fisher Trophy Race, is equipped with

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80% - 88% REVERSE SPEED RATIO

Naturally, *Gar Wood, Inc.*, in standardizing the *Baby Gar*, again "put it up to Old Man Joe" for the reverse gear equipment

and so do the foremost engine builders

Many of them have standardized on Joes Gears exclusively for their regular equipment. Others "put it up to Old Man Joe" for particularly hard service in work boats, speed boats, passenger boats or pleasure boats.

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*put it  
up to  
old man  
Joe*

## Flapper, A Sport 18-Foot Runabout

(Continued from page 84)

coat of lead mixed without oil and three coats of Valspar bronze or equivalent. The sides of hull are to be properly filled and to have three coats of Valspar interior bronze and one heavy coat of lead up to the chine and two coats of color up to the deck. Three coats in the engine room and where exposed. Decking and all finish to be properly cleaned up and filled, then to have three coats of Valspar. Hatches are to be finished natural on the inside. The flooring to have two coats of desired color or may be finished natural. All coats are to be properly applied and to have proper preparation, sanding well with No. O sandpaper between each coat.

### Hardware and Fittings

**Steerer:** This is to be of the W. S. Hall & Co. type with a scored drum. It is to have a 16-inch wheel mounted on the portside of the boat and to have 3/4-inch bronze cable leading to the tiller through 3-inch sheaves and necessary fair leads to insure good wear.

**Rudder:** This is to be of the Hacker type and made suitable to the job. It will consist of a bronze rudder special stuffing box, a special hanger bracket and sliding type tiller.

**Strut:** This will be of manganese bronze of special Hacker type suitable to the design. It will be securely through bolted to the keel with six 3/8-inch bronze bolts.

**Shaft Log:** This is to be of either the Hacker type or the Mechanical Devices Co. type. Self-aligning in either case. It is to be securely screw fastened to the keel with 1 1/2-inch No. 16 brass screws.

**Gas Tank:** This will be of No. 18 gauge galvanized iron and 10 by 12 by 24 inches long. It is to be riveted every 1 1/4 inches and well soldered. It will have a filler opening to take a 1 1/4-inch pipe and a 3/4-inch fitting in the bottom. The tank is to be properly saddled and cleated under the after deck and piped to the motor for a vacuum feed. Connect to the deck with a regulation tank driven with screw top and 1 1/4-inch pipe. There will be shut off valve at the tank and 5/16-inch copper tubing should be used to connect to vacuum tank.

**Deck Fittings:** The stern is to be bound with 1/2-inch half round brass screw fastened and filed flush. It is to extend about 18 inches under the hull and to have one special bow fitting. There will also be one 2 1/2 by 2 1/2-inch combination butt and socket; one special Hacker type clam ventilator; one 4-inch and one 5-inch cleat on each side; one 7-inch cleat on the stern; two 4 1/2-inch chocks on bow and stern; one regulation flat socket aft.

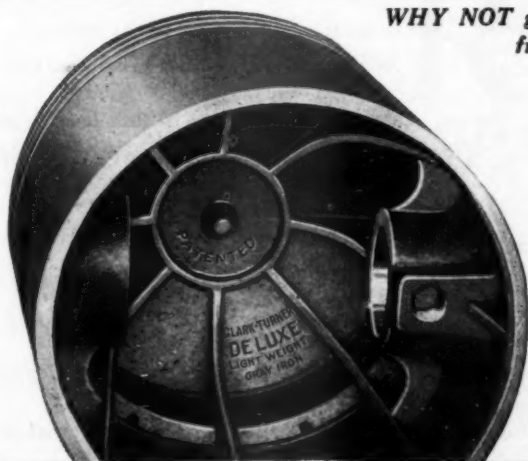
**Hatches:** These will be mounted on piano hinges and to have 1 1/4-inch 18 gauge brass binder. These are to be screw fastened with oval head screws. To have suitable lifting handles and quadrants to hold them in place.

**Motor and Installation:** The motor will be a model D Red Wing properly aligned and connected with a 1-inch shaft. The strut is to be babbitted after alignment. The exhaust piping to be of 18 gauge tubing or of iron pipe of such size as specified by the motor manufacturer. No 90-degree elbows are to be used. Make up line with 45-degree connections where possible, so as to cause the least resistance to the motor. Tubing is to extend through the stern along side of the stringer or in between. Gasoline connections to be of copper tubing with 5/16-inch to the vacuum tank and the same size to the carbureter. Connect the suction pipe to the carbureter stand pipe. There will be a valve on the vacuum tank and all fittings throughout should be of the S. A. E. type. All wiring is to be made according to the directions furnished by the motor manufacturer and is to be placed in running order. A 14-inch diameter and 12-inch pitch, three-blade propeller is suggested as the most suitable.

**General:** All necessary equipment such as running lights, anchor and lines, fog horn, fire extinguisher, cushions, linoleum, etc., are not included. If the boat is to be built by a boat builder this can be either included in the contract or furnished by the owner. Oil or electric light may be used. If of the electric type the Hacker type is suggested, combining the after and flag pole light. The bow light, bitt and flag socket are also in one unit. A 15-lb. stockless or folding anchor is suggested with 3/4-inch manila line. For bow and stern painters use 1/2-inch cotton line. Other equipment required will be one approved type extinguisher, one fog horn, one electric motor driven horn, mounted under the clam ventilator or a regulation mouth type whistle. Cushions are to be of mule skin material and kapoc filled. A paddle and boat hook are also needed. The linoleum shall be of the regulation battleship type 3/16-inch in thickness.

Prospective builders of this or other boats in this series are invited to communicate with the Editor of *MoToR BoATiNg* for any further explanations or information concerning the work which may not be entirely clear to them.

WHY NOT get **FULL PERFORMANCE**  
from your boat?



## Could you use a little more pep and speed?

Would you like to save a substantial amount of fuel and lubricating oil?

Does greater flexibility—more power and speed—eliminated vibration and noises—no over-heating—and fewer repair bills mean anything to you?

Then send in the coupon below for full information about DELUXE light-weight cast iron pistons. Let us tell you what they will do for your particular boat—and how they will renew your motor.

Light weight pistons are a fully agreed upon necessity—and DELUXE pistons occupy a place of acknowledged supremacy in the piston field. They save weight by eliminating useless metal—they weigh 40 to 50% less than ordinary stock factory cast iron pistons, yet they are **STRONGER** owing to the patented, scientific, reinforcing ribs.

They'll work a miracle in your boat.

We'll tell  
you how  
to get it!



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LIGHT WEIGHT CAST IRON PISTON  
The Successful Light Weight Piston ©

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Without obligating myself in any way, I'd like to know why DELUXE pistons can do so much for my boat.

NAME ..... SIZE OF BOAT .....  
ADDRESS ..... KIND OF ENGINE .....  
HORSE POWER ..... SPEED ..... FUEL CONSUMPTION .....  
I DRIVE A ..... AUTOMOBILE  
M-B-22

# Spendthrift II is a Deep Sea Champion

(Continued from Page 34)

great credit to an owner who was in charge and his crew consisting of E. C. Humphrey, G. Dangel, and G. S. Crilly. Although Kodak had not sufficient speed to take her to Atlantic City before the darkness shut in, yet she went through the Atlantic City Inlet without difficulty and without the services of a local pilot. This part of the trip was made more hazardous on account of the bad thunder and wind storm which prevailed at the time Kodak finished. This was so severe that the judges at the Atlantic City Yacht Club were driven indoors and failed to observe Kodak going across the line.

Mary, while not a new craft by any means is new in racing. Her owner, H. E. Jones of New York City entered her to give the Columbia Yacht Club a representative in the race more than for any other reason. This boat is a 57-footer powered with a six cylinder Speedway motor. Mary apparently was long on speed but short on navigation. Aboard Mary were H. A. Jones, R. A. Browne, R. E. McAllister, C. S. Baeder, and a crew of three paid hands. Even though there was apparently considerable navigation talent aboard yet their stories differ as to whether they reached Sandy Hook or only got so far as Gravesend Bay. Some dared to suggest that the crew really did not know how far they actually got before returning. At any rate trouble is laid to a faulty compass which had a deviation of several points and inasmuch as the navigators did not go aboard until a few minutes before the start of the race and as the fog was very thick from the outset, even going down the Hudson River they had no chance to determine these errors and allow for them. Very wisely, in viewing the circumstances, they put about and brought Mary to the first available anchorage they could find and waited for the weather to clear.

The Atlantic City boats were all very representative ones and a credit to the Atlantic City and the Ocean City Yacht Clubs which they represented. Mary R. owned by John D. Ellis of the Atlantic City Yacht Club was a raised deck cruiser 70-feet in length powered with a six cylinder Holmes motor. Delphine, owned by J. W. Mott of the Atlantic City Yacht Club was 48-feet in length and powered with a six cylinder Wisconsin motor. Delphine was the fastest boat in the race and won the prize for making the fastest time over the 196 nautical mile course.

Isabella, owned by H. N. Diesel is a 35-footer powered with a four cylinder Peerless motor. The crew of Isabella showed the greatest determination and grit in going through and finishing in spite of the troubles they encountered. They had a hard trip and any ordinary crew would have given up and returned without finishing, but not so with those aboard Isabella. First of all the cable on the steering gear gave way and to repair this it was necessary to chop away considerable of the cockpit. Then the exhaust pipe connection let go inside of the boat and one of the crew was gassed in an effort to repair it, and had a close call. He only revived after strenuous treatment at the finish. The Committee at the Columbia Yacht Club which timed the boats on the leg from Atlantic City to New York reported that the Isabella crew was about the pluckiest and gamest outfit they had ever seen.

The race was held under American Power-Boat Association racing rules and was a sanctioned event. The measurers or owners did not specify the engine revolutions. The revolutions were taken by those on board at thirty minute intervals during the race and of the revolutions so recorded, 25 per cent of the maximum were averaged and used as the revolutions per minute in computing the horse-power of the motor. This arrangement worked out in a very satisfactory manner although it meant that the winners of the race could not be determined until all boats had finished and turned in their report on revolutions.

In addition to the James Craig Trophy and the solid silver medal presented by the National Association of Engine and Boat Manufacturers, a valuable first prize was offered by Rear-Commodore C. A. Schieren of the Columbia Yacht Club. The two clubs conducting the race, offered time prizes for the first boat to finish in class A for cruisers of between 30 and 60 feet in length and class B for cruisers between 60 and 90 feet in length. Second, third, and fourth prizes of corrected time were also awarded.

The committees managing the race were as follows: Atlantic City Yacht Club, Orville T. Crane, Chairman; Victor J. Fisher, Charles P. Tilton, Warner Lindsay, Jr., Thomas P. Endicott. Columbia Yacht Club, Charles F. Chapman, Chairman; C. H. Moore, Charles Baeder, R. E. McAllister, W. B. Fox, Jr., Ira Hand, Secretary of the National Association of Engine and Boat Manufacturers, represented that organization on the joint committee.

The complete summary of the results follows.

## NEW YORK—ATLANTIC CITY RACE, JULY 1 & 2, 1922 196 Nautical Miles

CLASS A, CRUISERS 30 TO 60 FEET LOAD WATER LINE				
Boat	<i>Spendthrift II</i>	<i>Kodak</i>	<i>Delphine</i>	<i>Isabella</i>
Owner	W. R. Halsey A. Van Amringe	R. J. Haslinger	J. W. Mott	H. N. Diesel
Club	Oriente Yacht Club	N.Y.A.C.	Atlantic City Y.C.	Ocean City Y.C.
Time of Start 1st Leg	7 A.M.	7 A.M.	7 A.M.	7 A.M.
Time of Finish 1st Leg	5:41:13	8:15:00	4:41:58	9:25:00
Elapsed Time 1st Leg	10:41:13	13:15:00	9:41:58	14:25:00
Time of Start 2nd Leg	7 A.M.	7 A.M.	7:05:00	7:31:00
Time of Finish 2nd Leg	4:25:13	7:22:50	4:13:47	8:07:00
Elapsed Time 2nd Leg	9:25:13	12:22:50	9:08:47	12:36:00
Total Elapsed Time	20:06:26	25:37:50	18:50:45	27:01:00
R.P.M. (Average of 25% of max.)	906	571	790	729
Rating	42.31	33.67	50.49	40.75
Time Allowance	3-07-30	8-05-16	Scratch	3-52-10
Corrected Time	16-58-56	17-32-34	18-50-45	23-08-59

First prize won by *Spendthrift II*  
Second prize won by *Kodak*  
Third prize won by *Delphine*  
Fourth prize won by *Isabella*  
Time prize won by *Delphine*

CLASS B, CRUISERS 60 TO 90 FEET LOAD WATER LINE	
Boat	Mary R.
Owner	John D. Ellis
Club	Atlantic City
Time of Start 1st Leg	7 A.M.
Time of Finish 1st Leg	4:20:59 P.M.
Elapsed Time 1st Leg	9:20:59 P.M.
Time of Start 2nd Leg	7:05 A.M.
Time of Finish 2nd Leg	4:25:32 P.M.
Elapsed Time 2nd Leg	9:20:32
Total Elapsed Time	18:41:31
R.P.M. (Average of 25% of max.)	416
Rating	46.05
Time Allowance	Scratch
Corrected Time	18:41:31
First prize won by Mary R. Time prize won by Mary R.	

# RAJAH

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**D**ON'T take chances with ignition trouble. Your boating hours are all too short to waste time on faulty spark plugs. Buy the best—RAJAH Spark Plugs—they cost no more.

For more than twenty years RAJAHS have been proving that they are better spark plugs—better design, better materials, more careful workmanship, more exacting inspection before they leave the factory. No wonder they give better service. One set of Rajah plugs frequently lasts five to seven years in the same motor.

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Fits any  
size cable  
10c each



Thrust  
10c each

Furnished with ferrules to fit any size cable



Thrust Solderless  
Also Hook and Ring Types



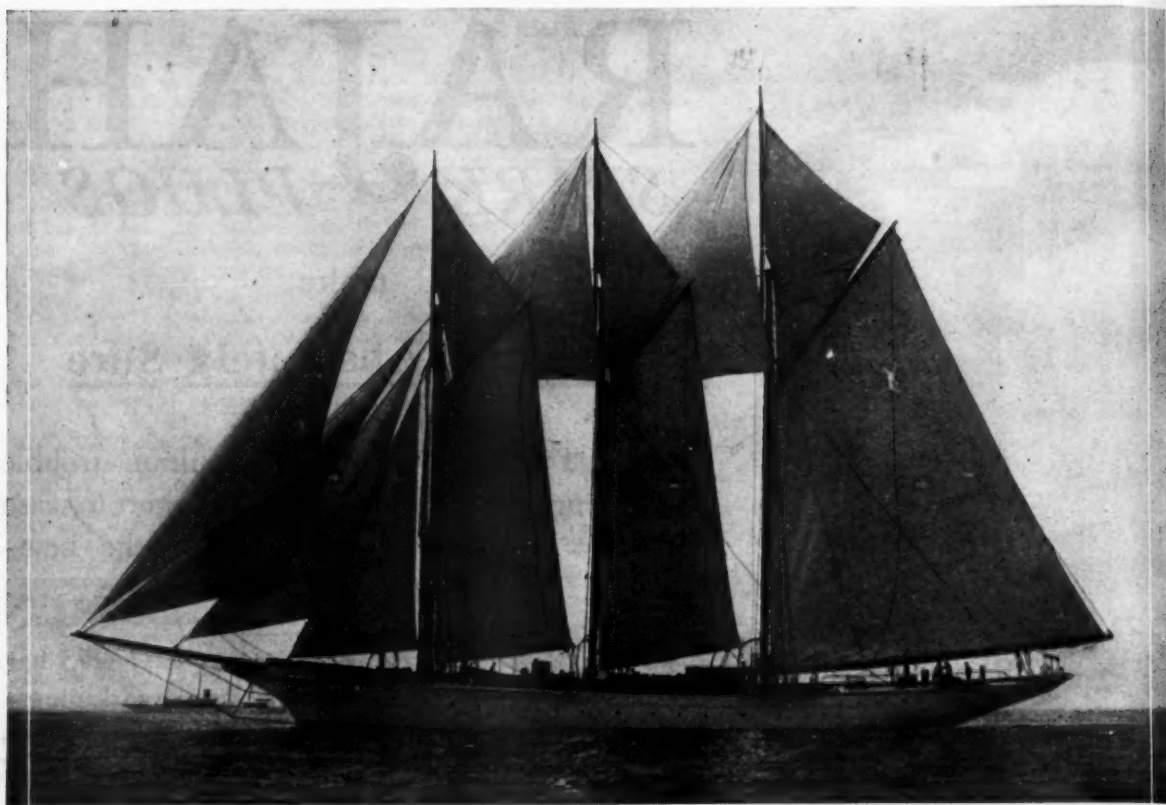
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## "Alcyone"—A Diesel-Electric Yacht

"Alcyone" built in 1908 by Geo. Lawley & Son Corp. from designs by Tams & King and owned by Mr. H. W. Putnam, has recently been converted from a Steam Yacht to a Diesel-Electric Yacht at the yards of the Tebo Yacht Basin.

The new power plant consists of two Winton Diesel Oil Engines, 6 cylinder 11" x 14" developing 225 H.P. at 260 R.P.M., each engine direct connected to a 140-K.W. Westinghouse Generator and a 12-K.W. Exciter, which in turn supply power to a 350-H.P. Westinghouse Driving Motor operating at 175 R.P.M. Two auxiliary Winton Generating Sets are operated by six-cylinder 3" x 4" Winton kerosene motors. Speed with steam plant—10 knots. Speed with Diesel-Electric Drive—11 knots.

Another striking example of the general trend towards Diesel-Electric Drive. Here is a 600-ton yacht in which the speed has been increased, cruising capacity tremendously added to, power plant space reduced, operating expenses minimized and vibration eliminated.

### Winton Engine Works Cleveland, Ohio, U.S.A.

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 San Francisco:—F. G. Bryant, 593 Market St. Washington:—R. L. Fryer, 817 Albee Bldg.  
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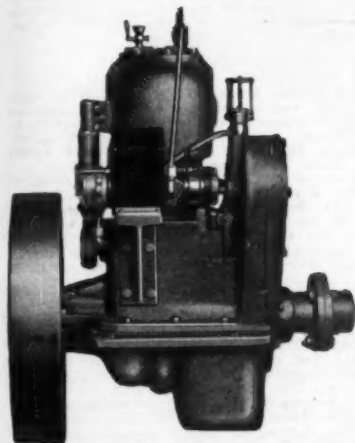
# Winton

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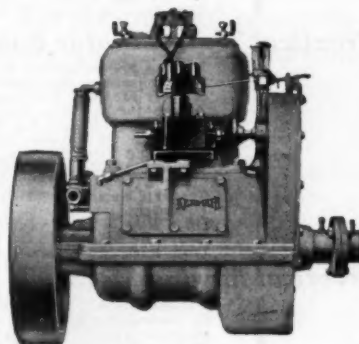
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Yes, thank you, business is mighty good for Kermath this year. Paralleling the record production and record sales of automobiles this spring, Kermath Marine Motors are pleased to report the biggest spring season in their history.



Single Cylinder, 4 Cycle  
3 H. P. ....\$135

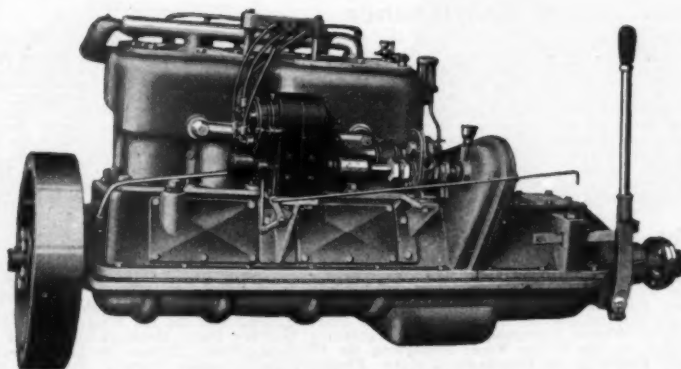
A big addition to the Kermath factory has been made necessary by the 1922 demand for Kermaths. All of which proves that there is plenty of business for the products that meet the popular demand—and of all marine motors today the Kermath line takes first place in popularity.



Two Cylinder, 4 Cycle  
4-5 H. P. ....\$235  
6-8 H. P. .... 255

Have a Kermath in your boat.

Four Cylinder  
Kermaths  
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16 H. P. .... 500  
20 H. P. .... 535  
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# MOTOR BOATING PRACTICAL HAND-BOOKS

Every motor boatman has long felt the need for a really complete and comprehensive library devoted to their favorite pastime—motor boating. One of the obstacles to the accomplishment of this important work was the difficulty in finding any one writer who could cover the field in its entirety. In presenting the new series of practical hand-books, MoToR BoatinG believes that the problem has been solved at last. These books are edited by Charles F. Chapman, M. E., the editor of MoToR BoatinG, and they are the results of months of untiring effort on his part, together with the best of thousands of suggestions sent to him by motor boatmen themselves. The list of the contents given below will give you some idea of the vast amount of ground covered by these volumes.

## Practical Motor Boats and Their Equipment

Volume 1.—The first volume tells you what the ideal boat for various kinds of service should be and what to look for in buying a boat. Many suggestions about decoration and hints on all kinds of equipment. All about steering gears, wireless outfits, electrical attachments, etc. Glance over the list of contents appended herewith: Hulls, Ballast and Seaworthiness; Round Bottom vs. Sharp Bilge; What are the Advantages of Flare? Raised Deck vs. Trunk Cabin; Best Proportion of Beam to Length; Selecting a New Design; The Advantage of Bilge Keels; Open or Solid Deadwood? What Makes a Hull Seaworthy? The \$1,000 Cruiser; Buying a Second-Hand Boat; Types of Bows and Sterns; Exterior Arrangement of Cruisers; The Best Cabin Arrangement; Finishing Up the Cabin; Changes in Interior Arrangement; Interior Arrangement for Open Boat; Propeller-Rudder Arrangements; Best Position for the Rudder; Advantages of the Outboard Rudder; Different Steering Positions; Steering Equipments for Motor Boats; Steering Gear for the Cruiser; The Steering Gear for a Runabout; Steering the Boat from the Side; The Electrical Equipment; Making and Wiring a Switchboard; Electric Lighting on a Motor Boat; The Inexpensive Lighting Outfit; Wiring the Small Cruiser; The Storage Battery; The Dynamo Cut-Out; Wireless for a Small Cruiser; Tender for a Thirty-foot Cruiser; Building a Folding Dinghy; Installing the Boat Boom; What is the Best Galley Arrangement; Ventilating the Galley; The Galley Stove and Its Installation; Making a Fireless Cooker; A Portable Cook Box; Running Water for the Cruiser; How to Build a Portable Table; A Table for the Open Boat.

## Practical Motor Boat Building

Volume 2.—As its title implies, this volume takes up the building of your own boat. It also covers the construction of the necessary fittings such as awning, windshield, etc. Every boatman sometime or other builds a boat, and a book of this kind will save much time and prevent many mistakes. List of contents: Types of Motor Boat Fastenings; Boat Building Woods; Laying Down a Boat's Lines; Converting a Trunk-Cabin Cruiser; A Steam Box for Amateur Builders; Joiner Between Stern and Keel; Fastening the Frames and Floors; Boring the Forgotten Limbers; Fitting the Garboard Plank; Boring the Shaftlog; Fitting the Stuffing Box; The Stern Bearings for a Cruiser; A Water-Tight Companionway; How to Canvas a Deck; Hinged Water-Tight Hatches; Making a Water-Tight Hatch; The Coaming of an Open Boat; Fitting a Swinging Port Light; Making a Self-Bailing Cockpit; A Water-Tight Window Sash; Making a Water-Tight Skylight; How to Build an Engine Housing; How to Make an Engine Cover; Building a Tool Locker; Constructing an Extension Transom; How to Make a Pipe Berth; An Ice Box for a Cruiser; Installing a Toilet; How to Rig a Signal Mast; How to Make a Spray Hood; Fitting a Folding Windshield; An Awning for the Open Boat; A Cover for the Open Cockpit; Screens for the Side Light; A Support for the After Light; A Seat for the Man at the Wheel; Removable Davits for the Cruiser; The Boarding Steps; A Bow Rudder for Your Hydro; The Motor-Driven Club Wheel.

## Practical Things Motor Boatmen Should Know

Volume 3.—Navigation is one of the important subjects covered in volume three of the series. Tells you how to steer, how to increase the factor of safety, and a host of other things relative to the proper running of your boat. The chart and compass are both fully explained in a clear and comprehensive manner. The list of contents will tell you more about it: Advice for the Beginner, Lessons Learned from Experience; Good Things to Know; Increasing the Factor of Safety; Which Way Should the Boat Steer? Why a Boat Steers Badly; Why do Boats Squat? Figuring the Boat's Speed; Ballasting the Cruiser; Getting Off Bottom; To Ride Out a Storm in a Motor Boat; The Why and How of Storm Oil; Preventing Fire; Handling Ground Tackle; Government Charts; Stowing the Anchor on a Cruiser; Diminishing Deviation; Preventing Electrolysis; Stowing and Using Charts; How to Make a Chart Case; Keeping a Motor Boat's Log; How to Make a Sestant; Tides and Tidal Waters; Taking Her Through the Canals; The Best All Round Dinghy; Towing the Tender; Handling the Dory in a Seaway; Getting the Tender Aboard; Planning for a Cruiser; Equipping for a Cruiser; Equipment for Offshore Cruising; Novel Events for Regatta Day; Handicapping; The Object of a Handicap Rule; Laying Off a Race Course; Measuring the Length of a Race Course; Preparing a Boat's Bottom for a Race; How to Build a Turning Buoy; Starting Boats in a Race; Stowing the Signal Flags; Fitting a Gun Mount; A Fish Box for Your Cruiser; A Cabin Wall Rack.

## Practical Marine Motors

Volume 4.—All about the marine motor; what it should and should not be. Tells why the automobile engine is unsuccessful in marine work. The best location for your engine, the ideal engine bed, the fuel tank, exhaust and countless other suggestions that will enable you to get the best results from your power plant. List of contents: Purchasing a Marine Motor; How Many Cylinders? Power per Cylinder; High Speed vs. Heavy Duty; Long Stroke vs. Short Stroke; Correct Motor Design; Changes in One's Power Plant; The Things that Cause Vibration; The Automobile Engine for a Boat; The Best Position for the Motor; The Ideal Engine Compartment; Placing the Engine in the Hull; Installing a Motor in a Canoe; Installing Power in a Yawl; Converting a "Banker" to Power Engine Installation in a Hydroplane; Putting Power in the Rowboat; Limits of Shaft Inclination; Constructing the Engine Bed; Getting the Motor Aboard; Lining Up the Propeller Shaft; The Best Exhaust; Mufflers vs. Under-Water Exhausts; Installing an Under-Water Exhaust; Primary Batteries for Ignition; Keeping the Ignition System Dry; Installing a High-Tension Magneto; From Make and Break to Jump Spark; Installing the Gasoline Tank; Taking care of Extra Gasoline; Spark and Throttle Controls; Constructing a Rear Starter; Propeller for Engine and Hull; Installing a Universal Joint; Gearing Motor to Propeller Shaft; The Automobile Throttle; Harnessing the Main Engine; Rehabilitating a Worn Bearing; Should Fuel Line be Inside or Outside?

## Practical Motor Operation and Maintenance

Volume 5.—One of the most valuable books of the entire set. Your motor's ills and how to cure them. This volume tells you how to adjust your carburetor, how to fit piston rings, how to remedy poor compression and a number of other things that will enable you to doctor your own motor. List of contents: Locating the Motor's Troubles; The Overheated Motor; Starting in Cold Weather; Overhauling a Marine Motor; How to Save Fuel; The Fuel Situation; Using Low Grade Fuel; How to Run on Kerosene; Supplying the Fuel to the Carburetor; Adjusting the Carburetor; Cleaning the Fuel Tanks; Cleaning the Gasoline Line; Stopping Up the Leak in the Tank; A Home-Made Gasoline Gauge; Carrying an Extra Supply of Oil; Mixing the Fuel and Lubricant; Remedying Leaky Compression; Killing the Carbon Jinx; Tool and Spare Parts to Carry; Removing and Replacing Piston Rings; Repairing a Leaky Cylinder; Grinding a Motor's Valves; Setting the Valves; Timing the Ignition System; Cleaning the Water Jacket; Making and Fitting a Gasket; Patching Up a Bearing; Straightening the Sprung Shaft; Truing a Bent Propeller; Removing the Flywheel; Separating Couplings and Pipe Fittings; Changing the Shaft Hole Location; Utilizing the Exhaust; Disposing of the Bilge Water; Heating a Small Cruiser's Cabin; Operating the Outboard Motor; The Clean and Quiet Boat; Charging a Storage Battery; When the Motor Stops Unexpectedly; Making a Unit Power Plant.

## Practical Suggestions for Handling, Fitting Out and Caring for the Boat

Volume 6.—This volume is an especially valuable one. You will find in it points covering the care of your boat that you never dreamed of before. Whether you are a beginner or a finished expert this book will give you a better knowledge of the handling of your craft than you can imagine. List of contents: Putting the Boat into Commission; Fitting Out a Thirty-Footer; Suggestions for the Beginner; Refinishing Bright Work; Keeping the Wood Surface Bright; Putting the Boat Out of Commission; Laying Up an Unsheltered Boat; Hauling Out for the Winter; Covering the Boat for the Winter; Launching from a Wharf; Correcting Faults; Lengthening Out the Boat; Moorings and Buoys; Taking Steps to Safeguard the Anchor; What to Use in the Bilge; Preserving the Wood in Boats; Emergency Rigs for the Cruiser; Auxiliary Sails for the Cruiser; Providing an Emergency Rudder; Preparing for Southern Waters; Stopping the Troublesome Leak; Replacing a Broken Plank; Removing Broken Lag Screws; Raising the Boat's Stern; Clearing the Propeller; Protecting the Bow and Stern; Open Boat Sleeping Quarters; Ventilating the Cabin of Small Cruisers; Converting the Open Boat to a Cruiser; Making a Cover for the Open Boat; Preventing Electrolysis; Building a Club Float; A Floating Boathouse; Constructing a Landing Stage; Building the Marine; Keeping the Thief Out; A Place for Your Shore Clothes; Stowing for Life Preservers; The Winter's Alterations; What Changes Shall I Make; The Satisfactory Bilge Pump; The Pressure Water System; Making a Pelorus; Your Storm Curtains; Life-Saving Equipment; The Absent Owner's Anchor Light; Mounting the Reverse Gear.

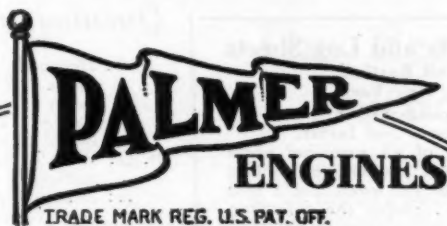
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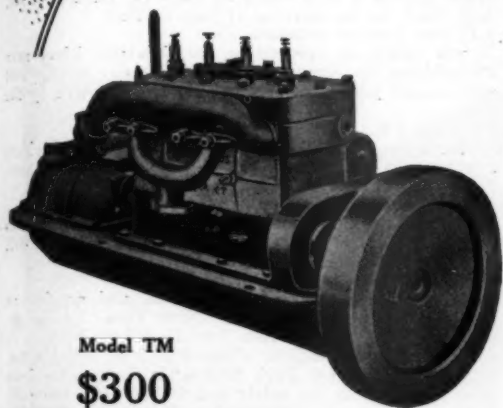
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Advertising Index will be found on page 118



## Another New Palmer—8-10 H.P. \$300 Complete



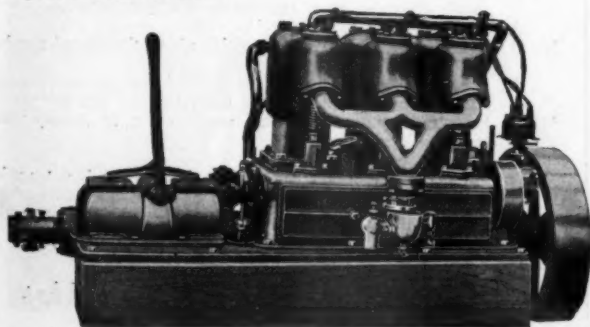
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complete, including reverse gear  
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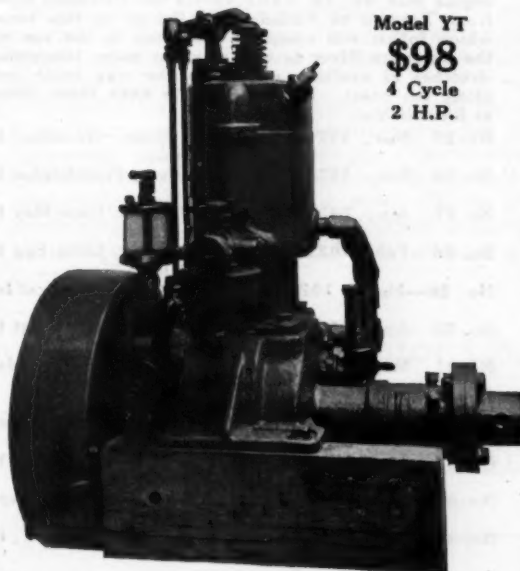
And then there's the Palmer Model YT, new this year. A single cylinder, four cycle valve-in-head 2 H.P. motor that makes an ideal power installation for high-grade yacht tenders and other small boats. Weight only 95 lbs. Price \$98.00.

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NR-2	10-12 H.P.	\$425
NR-3	15-18 H.P.	\$600
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The secret of Palmer success lies in the low prices at which these motors are sold, combined with their known reputation for quality construction and reliable performance. For example, this new model TM Palmer is as fine a little four cylinder, four cycle motor as can be built. The price of \$300 covers the complete motor, including spark plugs, carburetor, magneto, muffler and reverse gear.



Model YT

**\$98**

4 Cycle  
2 H.P.

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## Motor Boatmen's Charts and Log Sheets

Published by MoToR BoatinG  
119 West 40th St., New York

Charts printed on heavy cardboard  $8\frac{1}{2}" \times 11"$  and punched to fit standard loose leaf folder.

Contain name and location of all principal ports and harbors, distances, compass courses and sailing directions. Invaluable for use on small boats and motor yachts. The set now includes the following charts:

### Series A

- No. 1—Western End of Long Island Sound.
- No. 2—Eastern End of Long Island Sound.
- No. 3—Block Island Sound.
- No. 4—New York Harbor.
- No. 5—Boston Harbor.
- No. 6—Buzzards Bay.
- No. 7—Block Island to Vineyard Sound, including Narragansett Bay.
- No. 8—Delaware Bay.
- No. 9—Chesapeake Bay, Part I, Upper Part.
- No. 10—Coast of Maine, Portland to Rockland.
- No. 11—Hudson River, Kingston to Albany.
- No. 12—Chesapeake Bay, Part II, Central Part.

### Series B

- No. 13—Lake Erie—Eastern Part.
- No. 14—Lake Erie—Western Part.
- No. 15—Hudson River, New York to Kingston.
- No. 16—Lake Champlain.
- No. 17—Erie Barge Canal.
- No. 18—Massachusetts Coast.
- No. 19—New England—Newburyport to Portland.
- No. 20—Cape Cod Bay.
- No. 21—Maine, Monhegan to Eastport.
- No. 22—Chesapeake Bay, Part III, Lower Part.
- No. 23—Biscayne Bay.
- No. 24—St. Lawrence River and Thousand Islands.

## MoToR BoatinG's New Charts—Series C

The third series of MoToR BoatinG's popular charts begins with No. 25, which covers the Delaware River from Trenton to Philadelphia. Others in this series which follow will complete the route to the sea via the Delaware River as well as cover many interesting stretches of cruising waters on the way south and along the coast. It is planned to issue these about as listed below:

- No. 25 Nov., 1921.. Delaware River, Trenton to Philadelphia.
- No. 26 Dec., 1921.. Delaware River, Philadelphia to Smyrna.
- No. 27 Jan., 1922.. New Jersey Coast, Cape May to Little Egg Inlet.
- No. 28 Feb., 1922.. New Jersey Coast, Little Egg to Barnegat Inlet.
- No. 29—March, 1922.. New Jersey Coast, Barnegat Inlet to Sandy Hook.
- No. 30 April, 1922.. Chesapeake Bay, Smith Point to Cape Charles.
- No. 31 May, 1922.. Potomac River to Lower Cedar Point.
- No. 32 June, 1922.. York and James Rivers.
- No. 33 July, 1922.. Delaware Coast, Cape Henlopen to Chincoteague Inlet.
- No. 34 Aug., 1922.. Virginia Coast, Chincoteague to Cape Charles.
- No. 35 Sept., 1922.. North Carolina Coast, Cape Henry to Beaufort.
- No. 36 Oct., 1922.. Carolina Coast, Beaufort to Charleston.

### Log Book

MoToR BoatinG has also published a log sheet to fit the standard  $8\frac{1}{2}" \times 11"$  loose leaf folder. Each sheet contains spaces for such data as time of passing various aids to navigation, names of aids, magnetic and compass courses, distances, patent log readings, speed of boat, revolutions of motor, wind direction and force, condition of weather and sea, depths of water, fuel, time of high and low water, etc., etc.

### Prices

Charts 25 cents each or \$1.50 per set of 12. 36 Charts for \$3.50 (Series C will be sent as published). Log Sheets \$1.00 per set of 50 Sheets.

Loose Leaf Binders (canvas bound) to hold Charts and Log Sheets, \$1.75.

36 Charts, 50 Log Sheets and Loose Leaf Binder to hold Charts and Log Sheets, \$5.00.

# MoToR BoatinG

119 West 40th Street,

New York

## Questions and Answers on Lesson No. 5

(Continued from page 35)

- A: Diamond Island Ledge Buoy, 2; Brimstone Point Ledge Buoy, 4; The Brothers Buoy, 1; Lower Clapboard Island Ledge Buoy, 6A; Brant Ledge Buoy, 3; Kork Ledge Buoy, 5; Underwood Ledge Buoy, 7; Upper Clapboard Ledge Buoy, 8; Sandy Point Ledges Buoy, 10.
45. Q: What is the Notice to Mariners? (When and by whom published? What information does it give?)  
A: A weekly publication issued by Light House Service and Coast Geodetic Survey gives information relative to all changes in aids to navigation, new aids, new Government publications, charts, etc. Distributed every week by Division of publications, Dept. of Commerce, Washington, D.C.
46. Q: What time is it high water at New London, Connecticut, on the morning of July 15, 1921? (Do not omit this question—get a copy of the Government Atlantic Coast Tide Tables and learn to use it.)  
A: 5:47 a.m. Eastern Standard Time.
47. Q: What time is it high water at Yonkers, Hudson River, New York, on the morning of July 15, 1921.  
A: 5:35 a.m. Eastern Standard Time.
48. Q: If you should go aground on the Delaware River near Philadelphia on August 21, 1921 what day during that week would your prospects be best to be floated by the tide?  
A: Saturday p.m. August 27.
49. Q: In the Race, N. Y. how long after low water at New London does slack occur? (See page 434, 1921 Atlantic Coast Tide Tables; also pages 416 and 439.)  
A: Two hours.
50. Q: When are the best moonlight nights during the month of August, 1921 at New York? (See pages 484 and 493, Atlantic Coast Tide Tables.)  
A: August 15th to 20th.
51. Q: What are the chances of getting fuel and supplies at Port Washington, Long Island, New York? (This information may be had from Part IV, Coast Pilot.)  
A: Fuel and Supplies will be obtained at Port Washington.
52. Q: In going from New York to Florida in a motor boat what harbors may be safely entered between Beaufort, North Carolina, and Southport? (This information may be had from the Inside Route from New York to Key West.)  
A: Bogue Inlet may be safely entered in fair weather, all others dangerous for stranger.
53. Q: What lights are specified by the Pilot Rules to be carried on a vessel moored or anchored and engaged in laying pipe or operating on submarine construction or excavation?  
A: Three red lights carried on a vertical line not less than 3 ft. or more than 6 ft. apart and not less than 15 ft. above the deck and in such a position as may best be seen from all directions.
54. Q: When on account of bad weather the side lights cannot be kept in place, what action is permitted by the Pilot Rules on boats of less than 10 gross tons?  
A: May be kept inboard ready at hand to be shown when occasion requires.
55. Q: On steam vessels how much higher must the after white range light be than the forward white light?  
A: At least 15 ft.
56. Q: What do the Pilot Rules specify about the use of search-lights?  
A: Must not be flashed in the pilot house of any passing vessel or used to hinder the navigation of another vessel.
57. Q: How much later does high water occur at Albany than at New York City.  
A: 9 hours, 34 minutes.
58. Q: Albany is 140 miles from New York. With a ten-mile an hour boat how much before or after the time of low water at New York should such a boat leave New York to carry a favorable current up the Hudson?  
A: Two or three after low water at New York.

## Milwaukee Placed on Racing Map

(Continued from page 80)

### ADVERTISING CLUBS' SPECIAL CHALLENGE RACE

		5 MILES; 2 LAPS		1st	2nd
Boat	Owner	1st	2nd	Lap	Lap
Peggy II.....	Fred Schram.....	3:23	3:23	6:46	6:46
Miss Lochley.....	Daniel Hill.....				
* Did not finish.					

### FREE-FOR-ALL—15 MILES; 6 LAPS

		1st	2nd	3rd	4th	5th	6th
Boat	Owner	Lap	Lap	Lap	Lap	Lap	Lap
Baby Sure Cure.....	P. Strasburg.....	3:19	6:25	9:34	12:58	16:08	19:45
Miss Rosita.....	E. B. Blakely.....	3:15	6:26	9:35	12:54	16:09	19:25
Oh Min.....	H. A. Parsons.....	3:13	6:27	9:42	12:58	16:14	19:30
Badger Girl.....	Finley Bailey.....	3:21	6:39	9:56	13:11	16:28	19:44
Peggy II.....	Fred Schram.....	3:28	6:57	10:23	13:50		
Black Diamond.....	Barrick & Weber.....	3:36					
* Did not finish.							

## The Sensible Weight Outboard Motor

PROPER distribution of sensible weight is a factor you should look for when choosing an Outboard Motor. You are not buying a motor to use as a watch charm. What you want is service over a long period of years, and any engineer will tell you that there must be a certain amount of material in anything which is to run, in order to make it durable and wear well.

**Spinaway**  
Detachable  
Rowboat Motor

Dependability and long service have not been sacrificed to secure exceptional lightness—and yet the *Spinaway* is not heavy. The finest engineering skill has worked out for you a practical Outboard Motor of just the right sensible weight to assure long years of faithful service, free from trouble. Easily portable, the *Spinaway* stands supreme as the motor designed to stand up under the hardest service without flinching.

Consider this carefully before you equip your boat, for on it depends the satisfaction you will secure. A few pounds one way or the other may mean just the difference between dependability and trouble.

To make this clear to you, we have just issued a handsome edition of Specifications for the *Spinaway* showing its Design, Construction, and Materials. These Specifications include a blueprint of the motor and place before you every detail of the rugged mechanical construction. Send for a copy and let it answer your questions.

### Spinaway Boat Motor Co.

Owned and Controlled by Hoefer Mfg. Co.  
221 So. Chicago Ave., Freeport, Ill.

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Coupon for  
Catalog  
and  
Specification  
Sheet

**\$90**

With Battery Ignition

**\$95**

With Magneto Ignition

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Name .....

Address .....

When writing to advertisers please mention MOTOR BOATING, the National Magazine of Motor Boating, 119 West 40th Street, New York

# Motor Boating Activities on All Sides

(Continued from page 43)

## SPAIN

Miguel Sans Mora, Barcelona.  
Jonrique Samso, Barcelona.

## MEXICO

Gustavó Alana, El Automovil en Mexico.

An immediate effort will be made to enroll as many yachtsmen and lovers of aquatic sports in the country as possible and the annual membership fee of \$5.00 has been decided upon with no other dues or assessments.

## \$25,000 150-MILE BOAT RACE

Immediately after the organization of the Yachtsmen's Association of America, definite plans were made for the \$25,000 cash prize, 150 mile race to be held in Detroit in 1923. This will be the first big event held under the auspices of the Yachtsmen's Association of America. The race will be conducted by the Racing Committee of the Y. A. of A. which will be appointed in a few days. The \$25,000 prize will be raised by popular subscription and the following subscriptions have been received to date: F. R. Miller, Toronto, \$1,000; Gar Wood, \$1,000; Jas. A. Allison \$1,000; Carl G. Fisher, \$1,000; H. B. Greening, \$1,000; Webb Jay, \$1,000; MoToR BoatinG, \$500.

## Havana, Cuba, Offers \$10,000 for Motor Boat Race Next Winter

The National Commission of Tourist Publicity, functioning in the Republic of Cuba and protected by the Tourist Law of August 8, 1919, at a meeting held March 1, 1922, decided to issue \$10,000 in prizes to be distributed for motor boat races leaving Miami and entering the Port of Habana, in accordance with the rules and regulations to be stipulated and agreed upon by the Miami Beach Yacht Club of the American Power Boat Association and the National Commission of Tourist Publicity, (La Comision Nacional para el Fomento del Turismo.)

The prizes are to be distributed in the following manner: \$5,000 for the motor boat arriving in the first place; \$3,000 arriving in second place; \$2,000 arriving in third place. It is understood that these prizes will be in cash, besides trophies to be offered by the Habana Yacht Club and private trophies to be offered by private individuals in due time.

This regatta is to take place during the month of January, 1923. If for any reason it can not take place during that month, it may be arranged for between January and March, or any other such time during which the athletic competitions of the Flamingo Polo Club, Miami and the Cuban Team, Habana, are run, under the protection of the National Commission of Tourist Publicity.

The Miami Beach Yacht Club is authorized hereby to give such publicity throughout the United States and other countries that it deems necessary in order to give this regatta such international character as it may deserve, notifying the National Commission of Tourist Publicity to advertise this event throughout Cuba for the same purpose.

## Reviving International Motor Boat Racing

The Editor,  
MoToR BoatinG,  
119 W. 40th St.,  
New York, U. S. A.

Sir:

In conjunction with several other keen motor boat racing enthusiasts, I have considered what steps are necessary to revive the interest in this form of sport which was so wide-spread in pre-war days. Numerous discussions have taken place during the past winter by those interested and the conclusion unanimously arrived at is that if motor boat racing is really to flourish again, a revival of international racing must be worked for and some means found to reduce the present almost prohibitive cost of competing in international contests.

That this year, almost for the first time in the history of the sport, not a single British owner competed at the Monaco Motor Boat Meeting and no British challenge has been issued for the British International Trophy (the Blue Ribbon of motor boat racing and now held in America) are sufficient indications of the present state of affairs.

It is agreed that the time is now ripe for a serious attempt to be made to re-establish international motor boat racing on a basis which will duly take in account the economic and other difficulties now encountered as a result of the war. With this object in view, it is proposed to convene a meeting of racing motor boat owners and representatives of British motor boat and motor yacht clubs to be held in London shortly at which the

questions of home and international racing can be discussed and a line of action agreed upon to help a renaissance of the sport. It would be most helpful if all those interested in the revival of motor boat racing would communicate with me stating their opinions and put forward any suggestions they wish to make.

British opinion, I know, will be strongly in favour of strenuous effort to bring about a revival of interest. The movement—if organized on sound lines—would also command sympathy and support from clubs and owners in France, Italy, Switzerland, Belgium, Holland and the Scandinavian countries. Opinions collected by myself and Mr. John W. Ward at Monaco in 1920 and 1921 (when present at the motor boat race meetings there as representatives of the British Motor Boat Club) from builders, engineers and private owners in Great Britain, Spain, France, Italy and Switzerland were unanimously favorable to such a movement and there was general agreement on certain basic points. The late Georges Prade, whose untimely death occurred in 1921, and who did more than anyone else for the development of motor boating throughout Europe, heartily endorsed the general agreement on these points and intended starting a movement to put them into effect. The majority of the many opinions I have collected from sources at home and abroad agree on the immediate necessity for action in three directions:

1. The establishment of an international controlling body, or the re-establishment of the Association Internationale du Yachting Automobile (International Motor Yacht Racing Union) to which the principal countries were affiliated before the war.
2. The adoption of one or more international restricted racing classes (such as the British Motor Boat Club's restricted 30-foot class) in order to provide high-speed racing at a not prohibitive cost.
3. The encouragement of international racing and the revision of the rules of international contests to bring them in line with altered conditions since the war.

Discussions of these three points will be the principal items on the agenda of the meeting in London. Later in the year it is proposed to call an international conference of delegates from the principal motor boating bodies in European countries and America so that a real revival will commence next year. I sincerely hope that all those interested in the sport will communicate their views and suggestions to me as a preparatory step towards the holding of these meetings.

I am, Sir, Yours faithfully,

Morton Smart, Commodore, British Motor Boat Club.

## Mr. Crique Replies to the English Suggestions

Mr. C. F. Chapman,  
MoToR BoatinG,  
119 W. 40th St.,  
New York, N. Y.

Sir:—

Your favor of June 20, together with enclosures—copy of letter from T. P. Wynn Weston, Sec'y, Royal Motor Yacht Club, Southampton to Commodore Judson with copy of letter from Morton Smart, Commodore British Motor Boat Club to Editor MoToR BoatinG, has duly been received and I wish to thank you for your courtesy in sending to me copies of the above communications. They are truly interesting and their expressions of restrictions to be made, coincide with what I have tried to impress upon the people who are interested in racing for the past two or three years.

There are two conditions to be analyzed. After they are analyzed a solution should be made of the condition from which the greater number of people participate and will bring about the most good in the advancement of motor boating.

First comes the practically unrestricted class which involves the expenditure of great amounts of money, bitter disappointments and great loss of time, resolving into the very limited number of entries. A fitting example is the International Race; last year there were but two contestants and this year I understand there are none.

Second—next to be considered is a class restricted to boats and power plants that would be usable at all times and not merely a racing machine.

The first thing to consider is, what is the size of the boat that will be suitable and usable? What is the size of the power plant that would be suitable and usable? Speaking from my own experience from the general public demand; ourselves, like other marine engine builders have increased the size of engines for runabouts to about what we find has been the limit of demand. From the viewpoint of the manufacturer, what the market demands must have most consideration and engines could be built

(Continued on page 104)



## Schooner Yacht "Goodwill"

KEITH SPALDING, Owner

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POWERED BY A 180 B. H. P.

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**U. S. A.**

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LEISURE HOUR MODEL

16 ft. x 4 ft., Sail 100 sq. ft.

Sails fast, rows easily. Light enough for two to haul out readily. Strongly built.

## IMMEDIATE SHIPMENT

on the above model as well as on

ROW BOATS  
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15-FOOT CATBOATS

All built to stand  
many years of  
hard service

WRITE FOR OUR COMPLETE CATALOG

38 Jordan St., Skaneateles, N. Y.

### Middle Latitude Sailing

(Continued from page 37)

the equator, it equals miles, and the triangle may be solved by plane sailing:

$$\tan C = \frac{\text{Dep}}{\text{D L}} \quad \text{Dist} = \frac{\text{Dep}}{\sin C}$$

Dep 637.3	log. 2.80434	Dep 637.3	log. 2.80434
D L 615	log. 2.78888	sin C 46° 01'	log. 9.85706
tan C S 46° 01' E	log. 10.01546	Dist 885.7	log. 2.94728

The triangle Q D C may now be solved by Mid. Lat. sailing.

$$\text{Dep} = \text{D Lo} \cos M L$$

D Lo 963.7	log. 2.98394	M L 2 / 15° 30'
cos M L 7° 45'	log. 9.99601	7° 45'
Dep 954.9 E	log. 2.97995	

$$\tan C = \frac{\text{Dep}}{\text{D L}} \quad \text{Dist} = \frac{\text{Dep}}{\sin C}$$

Dep 945.9	log. 2.97995	Dep. 945.9	log. 2.97995
D L 930	log. 2.96848	sin C 45° 45'	log. 9.85510
tan C S 45° 45' E	log. 10.01147	Dist 1333.1	log. 3.12485
C to equator, S 46° 01' E,	Dist 885.7		
C S of equator S 45° 45' E,	Dist 1333.1		
Total Dist	2218.8		

Note: The writer does not deem problems like the two last given to be of much practical value. When it is recalled that a day's run of say 600 miles is extraordinary, even for fast steamers, it is obvious that distances running into thousands of miles are never encountered in dead reckoning problems which have to do with fixing positions at sea. Great distances only come into problems for finding the course and distance to be sailed to reach a remote destination. But in such cases, if the distances are really great, it is likely that the great circle course would be selected. It would be, we think, an unusual, rather than an ordinary case, in which a navigator would be called upon to find a rhumb course to accompany a distance that runs into the thousands of miles. And in such cases, he would ordinarily prefer the Mercator method. The above methods of crossing the equator by Mid. Lat. sailing have been included mainly because they contain features which may tend to clarify dead reckoning near the equator, and because the writer is informed that they were taught during the late war at the Naval Training School at Pelham; information, however, for which he cannot personally vouch. The writer has doubted whether, in the problem illustrated by Example No. 44, it could be safely assumed that the point where the track would cross the equator could be found by an application of the rule of three. This would undoubtedly be correct, if the triangles north and south of the equator were in fact plane right triangles; but they are not. Still, we have never happened upon a case where the method did not produce results which tallied closely with those of other methods, and we have assumed that "if it was taught at Pelham, it must be right."

Let us make a last minute addition of a point nearly overlooked, namely, that in Example 42, the Dep, as well as the C and Dist, might be found by inspection. Rule: "Go into Table 2 with the Mid Lat as a Course. Opposite the D Lo in the Dist column, find the Dep in the Lat column." This is the converse of the rule stated in Example 41. Thus:

p. 606, Mid Lat 38° as Course, D Lo 189 in Dist column = Dep 148.9 in Lat column.

p. 608, Mid Lat 39° as Course, D Lo 189 in Dist column = Dep 146.9 in Lat column.

For Mid Lat 38° 29', Dep = 147.9, which agrees with the computation.

Example 45: Vessel takes departure from Lat 50° 11' N, Long 4° 16' W, and sails C 257°, Dist 637 miles. Required, Lat and Long in. (Ans., Lat 47° 47.7' N, Long 20° 01.7' W.)

Example 46: From Cape Race Light, Newfoundland, to Cape Hatteras. Find C and Dist. (Ans., C, S 56° 05' W, or 236° 05', Dist 1226 miles.)

Example 47: Vessel takes departure from Ambrose Channel Light Vessel (Lat 40° 27' 59" N, Long 73° 50' 02" W). The following day, by observation, her position is Lat 32° 37.6' N, Long 68° 29.7' W. Required, C and Dist made good. (Ans., C, S 28° 41' E, Dist 536.1.)



# “That’s some engine for trolling”

Any time you want to get a line on the Universal engine for dependability, just ask the fellow who uses it for trolling.

He will tell you that she pushes a boat through the water, so quiet and steady and sure, at two miles an hour, that you never have to think about it when you are fishing.

He will also tell you that you can step on the gas and get to and from your fishing grounds in mighty fast time, if you want to.

Remember, there is just one quality and one size of Universal engine, and it is a darn good one. 22 years of engine building experience has gone

into it. A world wide reputation is back of it. The Universal name is on it.

It doesn't matter what kind of a boat you want to use a Universal engine for, she will do the work—for auto boats, launches, fishing boats and work boats anywhere from 14 to 30 feet in length. You can get the Universal with electric self-starter and reverse gear, if you want.

Get our catalogue now, and study up on what the ownership of a Universal means to you. The prices have been revised downward this year.

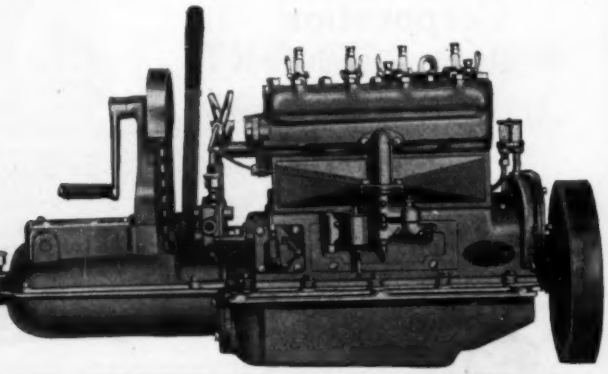
**Universal Motor Co., Oshkosh, Wis.**

*Not connected with any other firm using the name "Universal"*

Also manufacturers of Universal 4-KW. and Unimote 2-KW electric generating plants

# Universal

**4 Cylinder  
9-12 H. P.  
MARINE MOTOR**

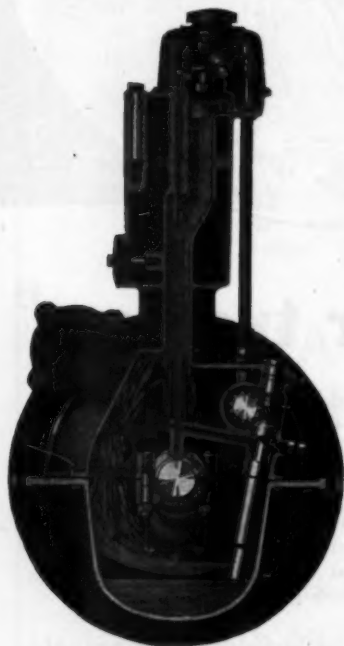


# A Better Engine for Your Boat

A STRICTLY DESIGNED MARINE TYPE

**T**HE 1922 Gray is neat in appearance, compact, and can easily and inexpensively be installed in runabouts 20 to 30 ft. in length; small cruisers up to 34 ft., also work boats.

Note the rigid one-piece base with Reverse Gear enclosed. The gear is automatically lubricated with positive gear pump that lubricates all other internal working parts of the engine—no grease cups or thick transmission oil used.

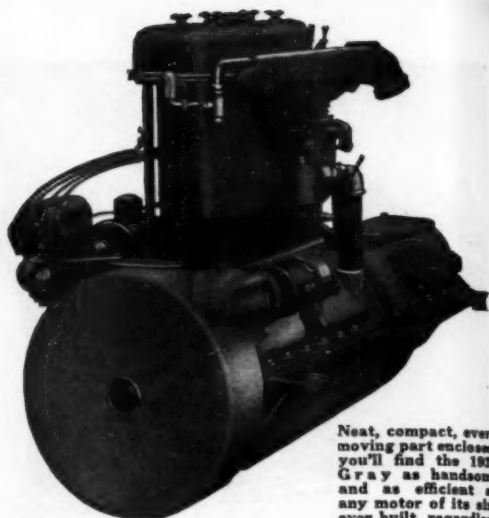


The splash lubrication is supplemented by force feed pump lubrication to all moving parts

Write today for latest catalog

**Gray Motor  
Corporation**

2106 Mack Ave., Detroit, Mich.



Neat, compact, every moving part enclosed, you'll find the 1922 Gray as handsome and as efficient as any motor of its size ever built, regardless of price

Oil filler is conveniently located on top of engine with duct leading to Crank Case. Rocker arm shaft is hollow and automatically supplies oil to Rocker Arms. Oil is forced under pressure to the three main bearings, and to the connecting rod troughs.

In brief, the Gray Oiling System leaves nothing to chance. It is unfailing at all engine speeds, and all oil is kept inside the engine, and not thrown around the boat or on its occupants.

The fly wheel is enclosed, affording safety and cleanliness. Bilge water cannot be thrown by the fly wheel. Every working part is enclosed; even the push rods. Due to the special design of the Cam Shaft, push rods and rocker arms, scarcely a sound can be heard with ear close to the engine.

The smooth, quiet operation of the new Gray improved Valve-in-Head at all speeds from 200 to 2000 would compare favorably to an electric motor. It runs most economically on low grade gasoline and satisfactorily on kerosene.

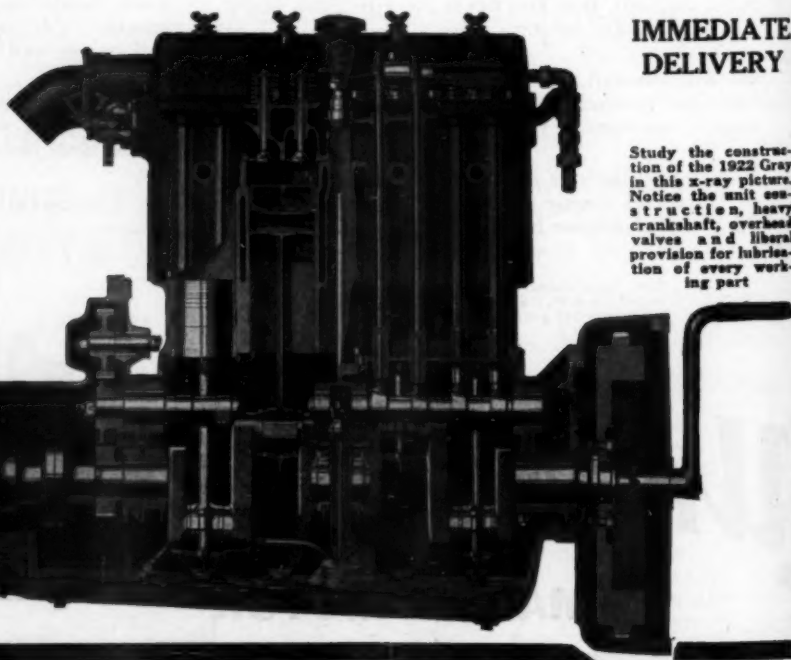
## Note The Big Crankshaft

The diameter of the main bearings are: Front  $2\frac{1}{8}$ ". Center  $2\frac{1}{16}$ ". Rear 2". The lengths are  $3\frac{3}{4}$ ",  $2\frac{1}{2}$ ",  $2\frac{1}{2}$ " respectively. Crankshaft is 40-50 point carbon steel forging, heat treated and ground.

Special attention is given to the balancing. The shaft is put in rotative as well as static balance on an Akimoff Dynamic Balance Machine, reducing vibration to a minimum.

Bosch Magneto with Impulse Starter, also Bosch two unit Starter and Generator is used.

Gray Two-Cycle Motors are built in models from 3 to 8 h.p.



**IMMEDIATE  
DELIVERY**

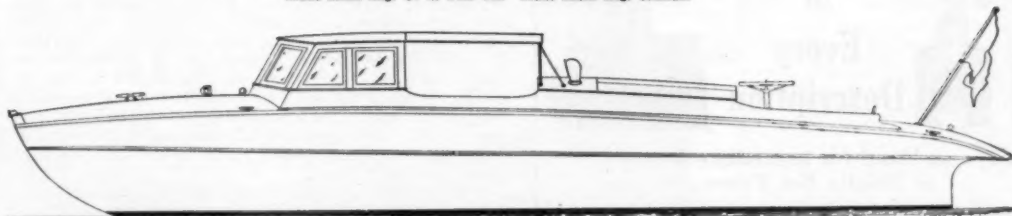
Study the construction of the 1922 Gray in this x-ray picture. Notice the unit construction, heavy crankshaft, overhead valves and liberal provision for lubrication of every working part

Inverted V-bottom  
and Surface Pro-  
peller Boats.

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## Sea Sled Coupe Yacht Tender

*Speed over 30 miles*

THE ability of Sea Sleds to carry heavy loads at high speed has enabled us to develop a new type of boat in the 24' x 6' Sea Sled Coupe Yacht Tender, the first of which is now being built at our plant for Col. James Elverson, Jr., Publisher of the Philadelphia Inquirer.

No other yacht tender ever built has combined in equal degree the characteristics of large passenger capacity, roominess, comfort, weather protection, seaworthiness, safety and high speed found in this boat. The coupe enclosure of the front of the forward cockpit provides the same protection as an automobile coupe or limousine for inclement weather. The after cockpit provides a separate compartment for the operator and for transportation of the yacht's crew and stores.

In quality of workmanship and finish, this mahogany tender matches the finest yachts afloat. Speed according to power. Blueprints and full details forwarded on request.

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The smallest boat to which Sea Sled fundamentals of boat design have been applied—the Sea Sled Dinghy—is already a marked success. Truly a universal small boat, equally suitable for dinghy, tender or outboard-motor boat. It combines the utmost in safety, stability, weight carrying ability, easy rowing and fast towing. Best for shore landing, wharf landing, fishing, hunting, camping, outboard motors and general utility. 8, 11 and 13 ft. in length, equalling 12, 14 and 18 footers in capacity.

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\$5.00 Kapoc Life Preservers, Government Stamped and Approved. Very comfortable and just the thing for either adults or children .....	<b>1.50</b>
\$5.00 Navy Megaphones, 18" Metal Trimmed and Varnished .....	<b>1.50</b>
7/8" Standard Navy Manila Rope, per pound .....	<b>.20</b>

Send for net price catalog today. At your request a beautiful bound Log Book will be mailed gratis with every shipment of \$5.00 or more.



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85 Chambers St.  
67 Reade St.  
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### *A Kermath Booster*

S. W. Harris of Norfolk, Va., in writing to the Kermath Manufacturing Co. of Detroit, takes occasion to mention the excellent service which the Kermath Marine engines are giving him. He says in part: "I have been driving an auto since 1903 and at the present time have eleven gas engines on my place at Lynnhaven, Va., but must say that the Kermath is one of the sweetest engines I have ever heard run, and I shall be very glad indeed to give you a boost in this vicinity."

### *A Real Electric Motor Boat*

Unique among motor boats is Lightnin', one of several electric motor boats designed by William T. Donnelly, well known consulting engineer. The generation and application of electrical power in these boats have been thought out more completely than was ever attempted in a motor boat before.

### *The Rings Hall-Scott Uses*

The Hall-Scott Motor Car Company is one of the firms which is using its share of the Million Quality Snap Rings that are manufactured every month by the Piston Ring Co., Muskegon, Mich.

### *Wisconsin Motors*

Wisconsin Marine Motors are built by the Wisconsin Motor Mfg. Co. in sizes ranging from the four-cylinder 4 x 5 inch bore and stroke to a six-cylinder 5 3/4 x 7 inch model.

### *Everything for the Interior of a Boat*

The Bridgeport Coach Lace Company specializes in interior furnishings for boat builders. They are prepared to supply everything that is needed within a boat from a tack to a dictaphone.

### *Ferry to be Powered with Winton Diesel-Electric Drive*

The ferry-vessel Poughkeepsie which is now under construction is to be powered with a pair of six-cylinder 150 h.p. Winton oil engines direct connected to 90 K. W. Westinghouse generators, which in turn operate two 100 h.p. Westinghouse electric motors on the double-ended propeller shaft. Poughkeepsie is 140 feet long and will have capacity for 32 automobiles besides the usual cabin accommodations.

## *Motor Boating Activities on All Sides*

(Continued from page 98)

too large to be desirable. If the limitation of power plant is restricted to a size that would be of demand, engine builders would put forth their best efforts to develop and improve. The general public would be benefitted, because they would have all the advantages of the improvements and development, but if the size selected is larger than the public demand—larger than a man would want so that his boat might be usable for pleasure purposes in addition to the racing purposes, there would be lesser competition in the building and developing of a special engine as compared to the development of an engine for which there was a market. Our experience has taught us that the demand ceases for runabout work in a motor, 6 cylinders, of 5 3/4 bore by 6 3/4 stroke, which has a cubic content of 1,057 inches. It may be possible that a demand might be created for an engine of larger cubic inches, but we have never had a call for such engines commercially.

I think the point mentioned in Mr. Weston's letter of minimum weight restrictions should also receive very careful consideration. There should be sufficient weight put into the hull to make it seaworthy. We have all observed more or less, very lightly built racing boats, so light that we would not consider such construction for a minute for a good, healthy runabout.

I firmly believe that with sane restrictions in size of engine, limitation of minimum weight and rules covering construction of healthy racing boats, we should have a greater number of entries for these events. It is without question that speed records might be somewhat lower but all would have an equal chance for development and the highest speed obtainable with real boats.

I think there also should be rules governing engine construction. The cylinder should be cast iron, fabricated cylinders should be eliminated. They should be built for sea duty. Exhaust manifolds should be water jacketed and engines to have free clutch and reversing gear suitably enclosed and mounted in a continuous bedplate formed integral with the engine base. The engine should be fitted with flywheels, electric starting and lighting systems and in all ways otherwise fitted for service and durability.

I trust that Mr. Weston and Commodore Smart may be able to bring about a condition in motor boat racing that would insure the greatest number of entries and a string of boats that would be able to complete a 150 mile race, which would be of great satisfaction to the participants and the general public who are interested in seeing these great events.

C. A. Criqui, President,  
Sterling Engine Company.

## *Detroit Invites World to Hold International Boat Conference in September*

Detroit will hold an international motor boat conference during the Gold Cup regatta, September 1, 2, 3 and 4, if the European enthusiasts accept an invitation cabled recently. J. Lee Barrett, secretary of the newly organized Yachtsmen's Association of America has invited the British enthusiasts who are trying to arrange such a conference to hold the sessions here.

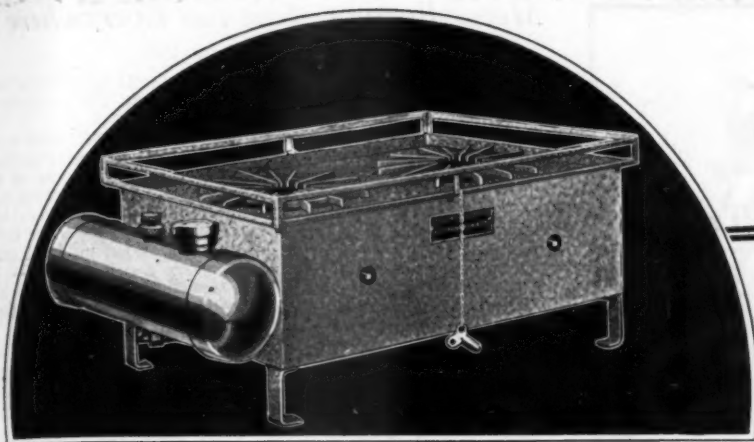
Motor boat racing is practically dormant in Europe, due in part to the disruption of the Association Internationale du Yachting Automobile, which was the unified sports body for motor boat racing before the War. Germany and Austria were members and supporters then, and since the War motor boat racing in Europe has languished. Another reason is that the crafts capable of winning the Harmsworth Trophy, the world's blue ribbon power boat classic, are worth a small fortune and only a few of the wealthiest sportsmen can afford to challenge for this event, and the world's championship, now held by Commodore Gar Wood.

Secretary Barrett, at the direction of Commodore Wood, president of the Y. A. A. cabled Commodore Morton Smart, of London, commodore of the British Motor Boat Club and T. P. Wynn Weston, of Southampton, secretary of the Royal Motor Yacht Club, extending the invitation to hold the conference here.

These two organizations are interested in reviving international power boat competition between the United States, England, France, Spain, Italy, Switzerland and the Scandinavian countries. After a careful survey of the situation in Europe they have communicated their plans to Charles F. Chapman, of New York, secretary of the American Power Boat Associations racing commission. He in turn referred the matter to the new Yachtsman's Association of America.

The British enthusiasts are considering the advisability of restricting the class of crafts in the British International Trophy or Harmsworth, as it is popularly known, and eliminating the monster hydroplanes which now race for the world's title. The present restrictions are limited to a hull length of 40 feet but no limit is placed on the engines. It is their idea that hulls should

(Continued on page 106)



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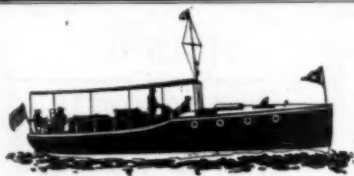
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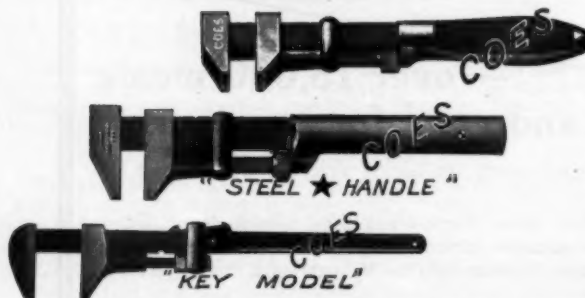
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## Motor Boating Activities Everywhere

(Continued from page 104)

be limited to a greater degree, that engine sizes be reduced to permit of but one Liberty 12 and the class of boat put within the reach of the sportsman of modest means.

Commodore Wood's invitation is based on the fact that for the first time in the history of the American championship the Gold Cup is restricted class. He believes that the question of a reduction of speed in the Harmsworth could be considered to better advantage if the European enthusiasts were to come to Detroit and see the Gold Cup event, as practically the same end was sought when the United States classic was put up for boats of a restricted class this year.

If the conference is held here the sessions will likely be held on Tuesday, September 5, the day after the completion of the annual regatta on the Detroit River.

## Southern California Clubs Join the American Power Boat Association and Form a Local Section

At a meeting of representatives from the Newport Harbor Yacht Club, Santa Barbara Yacht Club and Los Angeles Yacht Club, held June 22, 1922, the formation of a local Section of the American Power Boat Association was perfected, and the following named gentlemen were named as the Governing Committee.

Commodore Frank Smith, Geo. Vibert, E. S. Gardiner, Newport Harbor Yacht Club.

Commodore Earle Ovington, Ed. Gourley, Santa Barbara Yacht Club.

Commodore Otto G. Wildey, J. T. Dickson, Paul Jeffers, E. R. Abbott, Los Angeles Yacht Club.

Commodore Frank Smith, 1222 Washington Bldg., Los Angeles, California, was elected Chairman.

Commodore Otto G. Wildey, 515 Black Bldg., Los Angeles, California, was elected Vice-Chairman.

E. R. Abbott, 612 Loomis St., Los Angeles, California, was elected Secretary-Treasurer.

The name of the Section to be Southern California Section.

Formal application for a charter for the Southern California Section of the American Power-Boat Association has been made. The boundaries of this Section are to be from Santa Barbara, California, to San Diego, California.

It is the intention to endeavor to have the San Diego Yacht Club apply for membership in the American Power-Boat Association and if elected, ask them to join this section.

## Valve-in-Head I Wins

Again, Hal W. Tuttle at the wheel of Valve-in-Head proved to the motorboat fans of Southern California, that his craft is the best 610-cubic inch displacement speedster in southern waters when he won the sixteen-mile race in the outer harbor recently. It was a heart-breaking finish as Joker, which was piloted by Ralph Hamlin, was nosed out as she crossed the tape, a scant three seconds behind the Tuttle craft. Valve-in-Head I negotiated the distance in 27 minutes 30 seconds, an average of 34.9 miles per hour.

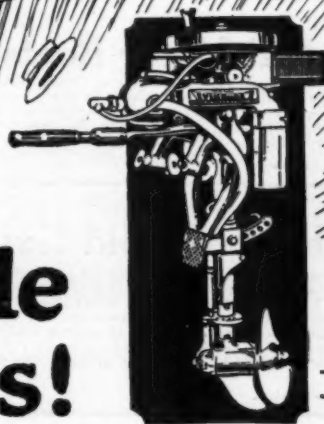
Only three entries took a race-horse start as the gun was fired from aboard Jubilo, sending the motorboats on their way for the championship of the Los Angeles Yacht Club, two finished. Frank A. Garbutt's Mystery gained a wide lead in the first heat, but as usual, Father Neptune, applied the jinx wand to the Mercury club craft and she dropped out.

It was necessary for the racers to go four times around the four-mile course in order to complete the sixteen-mile circuit. Both Tuttle and Hamlin experienced some difficulty in locating the buoys which staked out the course and they lost considerable time in covering the first lap.

As the boats came around the palatial Jubilo, the official craft, to complete the initial lap they appeared to be waging a terrific duel with Joker slightly in the lead. The racers maintained practically the same positions throughout the event until the finish when Tuttle shot across Valve-in-Head I first in the thrilling race. So close was the finish that many of the spectators thought the boats were neck and neck, but the official timers clocked Joker as being three seconds behind the winner.

A marked improvement over the former time made by Valve-in-Head I, was shown, when she averaged 34.9 as compared with an average of 33.7 miles per hour made in her first race last month. Joker, too, bettered her former performance. In the May race the Hamlin speedster averaged 32.21 miles per hour.

(Continued on page 110)



## More Evinrude Victories!

Again the Evinrude Motor demonstrates its famous speed. In the Outboard Motor Race at the Power Boat Regatta of the Mississippi Valley Power Boat Association, held July 1st on the Illinois River at Peoria, Illinois, the Evinrude took first and second places.

At Madison, Wisconsin, in the Outboard Motor Race held on Lake Monona on July 4th, the Evinrude took first, second and third places.

At Pewaukee Lake, Wisconsin, the Pewaukee Yacht Club Outboard Motor Race, held on July 4th, was won by the Evinrude.

At Okauchee Lake, Wisconsin, in both the races held on July 2nd and 4th, the Evinrude won first, second and third places.

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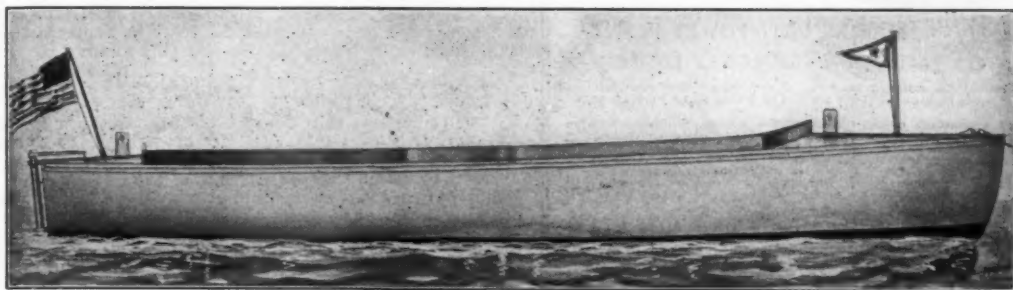
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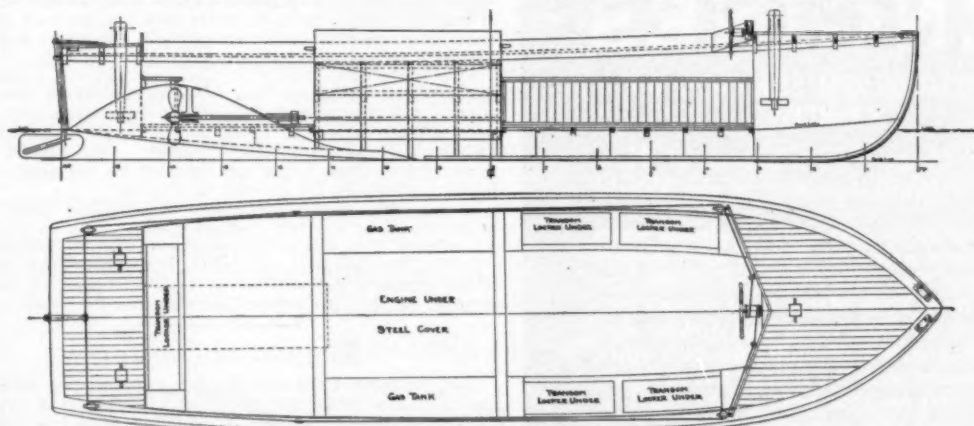
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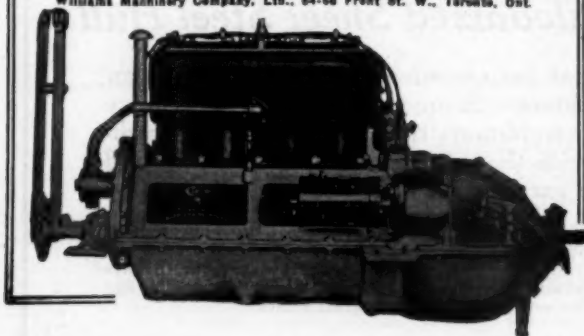
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## Motor Boating Activities Everywhere

(Continued from page 106)

### Los Angeles Boats to Race in North

Wild Bill Paden will take his Hurricane II north to compete in the motorboat classic to be staged late this month by the San Francisco Yacht Club, according to his announcement recently. Dustin Farnum is also planning to enter Miss Los Angeles in the powerboat event, he stated. Hurricane II and Miss Los Angeles are considered to be the speediest boats in Southern California and should easily triumph in the Bay City affair.

### Hurricane II Wins Wrigley Trophy

Four contestants started in the eight lap race for the William Wrigley, Jr. trophy at Avalon, Catalina Island. From the dense clouds of smoke and spray, Joe Fellows of Wilmington, in the Fellows IV, led the procession, but he had not got more than a hundred feet away from the first stake boat before Hurricane II with W. W. Paden at the wheel passed him. Then Dusty Farnum in Miss Los Angeles swept by him, and then Lincoln, with A. L. Fleming at the wheel also passed him before he had reached the second stake boat of the triangular three-mile course.

Only two boats finished in the race, Hurricane II being in the lead for a hundred yards. Distance, twenty-four miles. Time 44m. 45s. The average speed made by Hurricane II was thirty-seven miles. For the first lap of this hotly contested free-for-all race, the boats held pretty well together, with Hurricane II in the lead, and as the boats dashed through the moderately calm water the cries of encouragement from the crowds which thronged the beach from the Hotel St. Catherine past Sugar Loaf and to Abalone Point, could be distinctly heard by those on vessels near the racing course.

Dusty Farnum was crowding Hurricane II into a wild speed when she passed the stake boat near Lover's Cove. In clouds of spray fifty feet high, then a dense volume of smoke, and a report like the firing of a gun, Miss Los Angeles suddenly stopped. Dusty had hit a piece of piling about six feet in length. Then Fellows stopped because there was no one near Farnum at the time of the accident. But Farnum waved to Fellows that he was all right, and urged him to continue in the race. By this time Hurricane II had gained almost a half a lap.

Then Lincoln, with engine troubles, stopped. Farnum was towed back to his mooring, and Lincoln slowly returned to the harbor under its own power.

Hurricane II on the inside track, turning the last mark, made a wonderful picture in speed-boat racing. Covered with volumes of spray, Hurricane II shot over the mark, winner of the beautiful trophy presented by William Wrigley, Jr. Trophy stands almost two feet in height and is twenty inches around the base.

In the 610 cubic inch piston displacement runabout race Lucky Strike, with Alvin H. Frank at the wheel, did not have an easy victory over Scoot and Joker. Twice over the five laps of the fifteen-mile course Scoot nosed its way into the lead, but on the third lap it fell back a distance of about a hundred feet and was unable to recover the space.

Five boats were entered in this speed contest, Lucky Strike, Scoot, Joker, Radio and Stag. The Lucky Strike completed the race in 28m. 30s., and the Scoot passed the winning post fifteen seconds later. Alvin H. Frank piloted Lucky Strike and George Desals gave nourishment and encouragement to L. M. IV Hall Scott motor. Pilot Frank was awarded the beautiful silver loving cup offered by the citizens of Avalon.

In the yacht races Paul Jeffers in the yacht Wasp won the prize offered by the Los Angeles Yacht Club. S. B. Hayes in Mischief II followed him closely and Vite arrived third.

During the four-day carnival it is estimated that more than twenty-thousand persons visited Avalon, coming on the regular steamer, the privately owned speed boats and yachts.

### Regatta in California

The Southern California Yachting Association will hold an annual regatta during the second week in August in and adjacent to Newport Bay. Newport is located close to Los Angeles and excellent weather conditions prevail for racing of all kinds. A new clubhouse is being erected on the Wilmington Channel by the California Yacht Club and will be ready by August 1. Due to the recent consolidation of the South Coast Yacht Club and the Los Angeles Motor Boat Club, this club has the largest fleet of pleasure yachts in the southwest.

### The Way to Stop All Boat Leaks

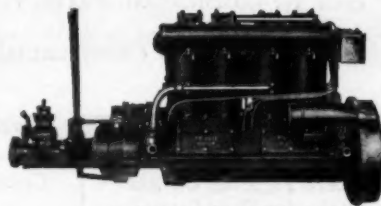
L. W. Ferdinand & Company issue booklets entitled "How to Make Your Boat Leakproof" and "Marine Glue—What to Use and How to Use It." They claim that by following the directions in these booklets for the use of Jeffery's Watertight Marine Glue any boat can be made waterproof.



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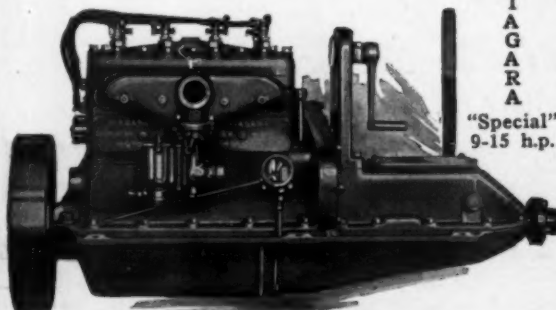
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## Correct Papers Submitted in June

The following whose papers were received during June have passed in the Piloting, Seamanship and Small Boat Handling Course:

Lesson No. 2: Percy V. Hendricks.

Lesson No. 3: Willard H. Branch, H. A. Renner, W. J. Schoepfle, F. W. Salmon.

Lesson No. 4: H. A. Renner, J. L. Saegmuller, Meredith Scott, Mrs. John J. Slater, W. J. Schoepfle, F. W. Salmon, Roy E. Williams, Harold Cahill, Charles Nagel.

Lesson No. 5: William Baumgart, P. B. Boell, V. C. Baird, A. F. Keck, N. F. Woodhull, K. De Hart.

Lesson No. 8: B. P. Boell, William A. Butler, H. C. Burr, A. F. Keck, George H. Leland, N. F. Woodhull.

Lesson No. 9: B. P. Boell, A. F. Keck, N. J. Woodhull.

Lesson No. 10: Charles E. Burch, B. P. Boell, J. A. Hain, George Hanson, N. F. Woodhull.

Lesson No. 11: L. F. Brower, B. P. Boell, George Hanson, J. A. Howland, Donald Spoor, Donald McClean, Leslie F. Chapman.

Lesson No. 12: L. F. Brower, B. P. Boell, Forrest D. Greene, J. A. Howland, Leslie F. Chapman.

Lesson No. 13: B. P. Boell, J. A. Howland, Leslie F. Chapman.

The following whose papers were submitted during June have passed in the Dead Reckoning Course:

Lesson No. 1: Leslie H. Chapman, David Snitzer, Frank D. Yost.

Lesson No. 2: K. DeHart, V. C. Baird, Vincent Francis, Morton B. Stelle, Fredk. W. Salmon, David Snitzer, W. G. Webster, Frank Zueger.

Lesson No. 3: R. Andren, Elmer L. Belanger, Dr. A. B. Bennett, V. C. Baird, Michael Cibener, W. A. Cornell, K. DeHart, I. S. Ellsworth, Vincent Francis, David Snitzer, Albert J. Fenton, L. P. O'Keefe, William H. Palmer, Edmund Roxby, C. Custer Robinson, F. B. Smith, Morton B. Stelle, Fredk. W. Salmon, Fredk. E. Smith, William O. Yates, E. T. Younggfelt, C. S. Young, H. T. Zachgo, Frank Zueger, Percy Benedict, James V. Lawrence, Ralph Christie, Wilson C. Boyden, John C. Broadhead.

## N. L. Stebbins Dies

(Continued from page 44)

and were always ready to help him promote his sales.

Mr. Stebbins did not confine his work to yachting, however. He was the first photographer to preserve the lineaments of the deep water ships of America when under sail by means of photographs, at a time when the square rigger was disappearing. He made many negatives in the eighties of famous ships and barks sailing out of Boston and Salem, that afterward were extremely valuable as records of a vanishing fleet. He also was a tireless worker on commercial steamers, and accumulated a very large collection of negatives of such ships. He was known to all the captains of American coastwise vessels, with whom he often took trips. He was also well known in the lighthouse service, having photographed all the lights from Eastport to the Rio Grande, for a coast pilot publication which he issued for many years.

WINFIELD M. THOMPSON.

## Yard and Shop

(Continued from page 60)

## Evinrudes Win Many Races

Many parts of the country are conducting races for outboard motor equipped boats, and a large number of these were held on the holidays over the fourth of July. The reports from some of these are beginning to come in, and Evinrude motors were successful in winning many of these events. For example: in the regatta of the Mississippi Valley Power Boat Association on July 1 at Peoria, Evinrude motors took first and second place. At Okauchee Lake, Wisconsin, Evinrudes finished first, second and third. At Lake Monona, Madison, Wisconsin, on the fourth, Evinrudes finished first, second and third, and at the Pewaukee Lake Yacht Club, also in Wisconsin, an Evinrude motor was also successful. These races were all open to motors of all kinds and many two-cylinder motors competed. The fact that single-cylinder motors were successful speaks well for their speed and power.

## New Evinrude Coast Representative

The Evinrude Motor Company announces the appointment of Howard G. Graves as Branch Manager at San Francisco. A new location will shortly be opened by the company. There will be a complete stock of motors, centrifugal pumps, parts and accessories, and a complete service department. Mr. Graves has come back into the Evinrude fold with a secure foundation of Evinrude experience, enriched by a wide knowledge of other auto-

(Continued on page 116)

Handsome Silver  
Trophy awarded  
the winner.



The winner, Mr. Maurice Edwards of Madison, Wis., in a practice run.  
All Eltos in the race were regular stock motors.

# Elto Wins!

## -in Speed Boat Regatta at World Ad Convention

At the Convention of the Associated Advertising Clubs of the World, Milwaukee, the Elto Light Twin, Ole Evinrude's latest motor earned an easy victory in the outboard motor race on Regatta day, winning **FIRST THREE PLACES** against a field of over 20 entrants on a 2½ mile course. The nearest motor of competing make was almost half a mile behind the leading Elto at the finish.

**FIRST THREE PLACES!** Keep this speed achievement in mind when you decide which outboard motor you will buy. If you were present at this Regatta at which America's fastest racing boats were assembled to furnish thrills for visitors to the Ad Convention, you will remember the Elto Victory as the climax of one of the most interesting and exciting events.

In many speed contests this year the Elto Light Twin has proved its right to recognition as the fastest outboard motor. The Elto embodies many other features which are as great an achievement as its remarkable speed. Altho a twin it weighs only 48 pounds. It's the most compact outboard motor. Slows down to and maintains perfect trolling speed. Starts instantly and easily. So carefully built and balanced it runs quietly and smoothly. Tilts automatically. Weedless construction; quiet underwater exhaust. A rugged, long service lightweight.

**ALL** the desirable features are combined in the Elto Light Twin—the outboard motor masterpiece. Remember—the Elto Leads in Speed!

Write for the Elto catalog and name of the Elto dealer  
nearest you. Address Ole Evinrude's new organization.

**ELTO OUTBOARD MOTOR CO.**

Dept. F Mfrs. Home Bldg.

Milwaukee, Wisconsin

# Elto LIGHT TWIN

## The FASTEST Outboard Motor



Ole Evinrude's  
Latest Motor

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Let the  
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*watch your hidden motor*

It reveals instantly weeds in the water-inlet, a clogged pump and other causes of overheating damage.

It enables you to regulate your motor temperature to secure maximum gasoline mileage.

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## Annual Commercial and Export Number



*(Regular September issue)*

If the commercial boat trade or the export market is an important feature of your business, we don't have to tell you the great value of this special issue for you. If you haven't developed these sides of your market, here is your opportunity to seek the increased business that is waiting for you.

The export business is picking up! Reports from various marine manufacturers state that foreign orders and inquiries are better than for several years past. Now is the time to boost your export sales while foreign interest in American products is reviving.

Uncle Sam maintains a world wide commercial organization to promote your business. The American Consular Service will back up your export publicity.

Every American Consul knows and reads MoToR BOATING. All of these and hundreds of other foreign buyers and boatmen will receive the Commercial and Export Number of MoToR BOATING.

And remember—this will be a regular issue of MoToR BOATING, with all of the regular circulation and regular editorial features. The special commercial and export features and circulation are extra—insuring not only full value but extra value for the reader and the advertiser.

**Forms close August 10th. Send your copy today**

**MoToR Boating**

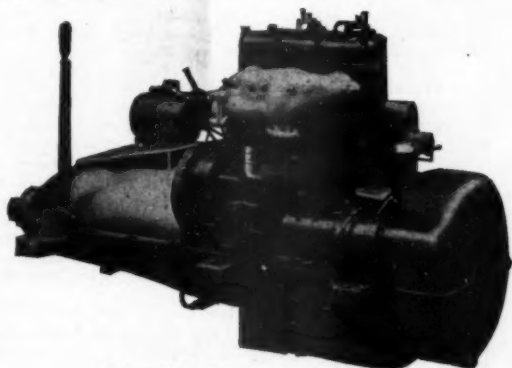
**119 West 40th St., New York, N. Y.**



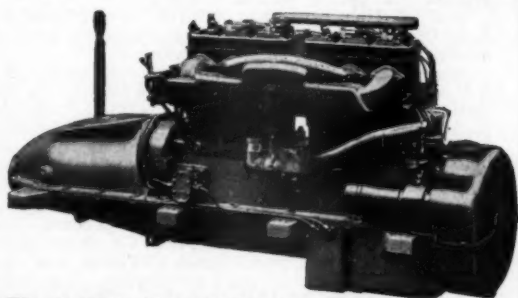
*"The Motor That Crossed the Atlantic"*

## "BY, NOT AT"

A large machinery dealer in the Far East writes: "The SCRIPPS motor has met with a very hearty reception from our many customers in the Philippines. One of them has tersely expressed his idea as follows: 'The reason I standardized on SCRIPPS marine engines is because they are made to swear by, and not at.'"



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15-18 H.P. High Speed  
Including Electric Starter **\$650**



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Including Electric Starter **\$1250**



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Including Electric Starter **\$1750**

SCRIPPS reputation for quality has been world-wide for 17 years. There's a good reason—unfailing dependability, rugged endurance, economy and tremendous power with quietness, cleanness and smoothness of operation.

Note the compact construction—the accessibility—the convenient arrangement of all equipment—the large, correctly balanced crankshaft, the automatic pressure lubrication to all bearings, even to reverse gear (no grease cups)—two unit starting and lighting—the double ignition for speed and safety and the exclusive SCRIPPS hot spot manifold that insures perfect carburetion, power, economy and freedom from crankcase dilution.

These and many more features help make the SCRIPPS the mechanically perfect motor. There is nothing finer, anywhere, at any figure.

Boat builders everywhere are installing the SCRIPPS wherever a genuinely high quality motor is wanted at a genuinely reasonable price.

Two, four and six cylinder models, medium duty and high speed, gasoline or kerosene—a motor for every purpose—cruiser—runabout—auxiliary or commercial.

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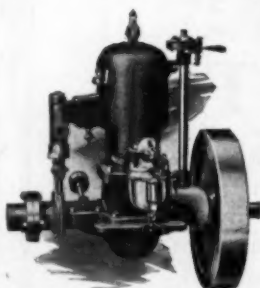
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*"Every Moving Part Enclosed"*

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Model 34, 1-cylinder, 2-cycle.  
Two sizes— $\frac{3}{4}$  H.P. and 4 H.P.

## For small power boats

Simplicity, light weight, easy starting, absolute reliability—for eighteen years these qualities have commended L.A. two-cycle engines to the expert engine man and to the amateur alike.

Prices range from \$77.50 to \$144.00. Write for complete description and specifications. Convince yourself that L.A. two-cycle engines are suited to every need for ideal small boat power.

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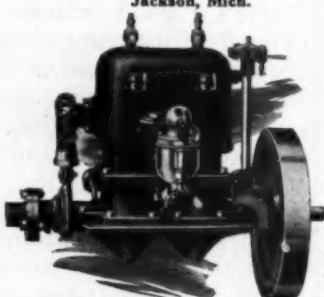
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Model 68, 2-cylinder, 2-cycle.  
Two sizes—6 H.P. and 8 H.P.

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## Cap'n Allswell says—

**"Vibration steals your power!"**

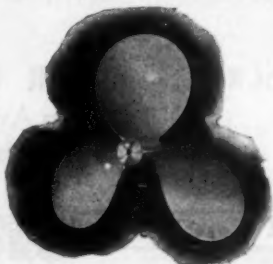
—slackens your speed, frazzles your nerves and slowly uncalks and weakens the hull. Maybe it's your propeller. Try a perfectly balanced Columbian. It may add that pesky 'something' which your boat has seemed to lack."

## COLUMBIAN Bronze PROPELLERS

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BRONZE CORP'N  
204 N. Main Street  
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For N. Y. C. Sales Only:  
44 Third Avenue



## Yard and Shop

(Continued from page 112)

motive products. This, coupled with his pleasing personality, will prove a marked asset to the present and future Evinrude owners in California, as well as to the company he represents.

## Gray Engines In Philadelphia

The Marine Engine Company with show rooms in the Bourse Building of Philadelphia, are to be exclusive distributors for the Gray Marine Engine in that section of the country. H. H. Kramm who has had charge of the Bruns Kimball Company is now in charge of the Marine Engine Company. He is an experienced engine and boat engineer and will be glad to place his experience at the disposal of his many friends in Philadelphia. Gray engines and parts will be kept in stock affording Gray owners the best service when required.

## Many Hall-Scott Motors Being Installed

Hall-Scott Marine Engines are finding great favor with the boating fraternity who are looking for the very best that American skill and workmanship can produce.

Some of the more important and most recent marine engine sales reported, are as follows:

125-H.P. Balanced Four for installation in a Bear Cat for Lord Auckland of New York City.

Kargard Boat & Engine Co. are installing a six-cylinder, 200-H.P. motor in a 28-foot runabout of their design, for Anton Cermak of Chicago, for use on inland lakes in the vicinity of Chicago.

Commodore Wm. J. Connors, of Buffalo, is having the Power Marine Ways Co., of West Palm Beach, Fla. install a six-cylinder, 200-H.P. Hall-Scott in a fast runabout which he uses between Palm Beach and his farm on Lake Okeechobee.

The Elco Works are building a 36-foot sedan runabout designed by Irwin Chase for W. S. Dana, of New York City, to be powered with a 200-H.P. six-cylinder Hall-Scott. This boat will be used on Long Island Sound.

The Fred Gilbert Motor Boat Co., of Brockville, Ont. are installing a 125-H.P. Balanced Four Hall-Scott marine engine in a runabout for Mr. Downey of Brockville, Ont. for use at the Thousand Islands.

C. H. Foster of Chicago and Miami, is installing a 200-H.P. six-cylinder Hall-Scott marine engine in his runabout Billie, for use on a lake in Wisconsin. The work is being done by the Hacker Boat Co., of Detroit.

Fred W. Haines, of Detroit, Mich. has purchased a Belle Isle Bear Cat powered with a 125-H.P. Balanced Four Hall-Scott marine engine for use on Detroit waters.

Albert Handly, of Dallas, Tex. and Long Beach, Cal. is having a 35-foot day cruiser of the sedan type built by the Wilmington Boat Works, to be powered with a 125-H.P. Balanced Four Hall-Scott. Mr. Handly will use his boat in Californian waters.

H. Hanson, of G. Shima Co., Potato Kings of Stockton, Cal. has purchased a 32-foot speed-buyer's boat, designed and built by Stephens Brothers, Stockton, Cal., and is having a six-cylinder 200-H.P. Hall-Scott installed.

Robt. Wood Johnson, of Johnson and Johnson, New Brunswick, N. J. is having the Hacker Boat Co. design and build him a 30-foot runabout to be used as a fast ferry boat to carry him between his home and his place of business. It is to be powered with a six-cylinder, 200-H.P. Hall-Scott. This boat will be given the same kind of service which a gentleman gives the smart raceabout auto, for carrying him to and from business each day.

Wm. R. Johnston, of the Chicago Yacht Club, is having a 200-H.P. six-cylinder, Hall-Scott installed in his 40-foot fast cruiser, Humdinger, replacing an eight-cylinder motor of another make. This boat was formerly Sarah Jane designed by George F. Croush for James M. Rowland, Philadelphia yachtman.

Dr. Roland R. Robinson and I. P. Hazard, of Peace Dale, R. I. are installing a 125-H.P. Balanced Four Hall-Scott marine engine in their 36-foot x 9 foot 6 inch Hand V bottom cruiser, replacing a six-cylinder motor of another make.

C. B. Talbot, of Detroit, has purchased a Belle Isle Bear Cat for use on inland waters. This boat, like all the other Bear Cats is powered with 125-H.P. Balanced Four Hall-Scott.

It is interesting to note that, so far this year, the Belle Isle Boat and Engine Co., of Detroit have sold ten of these standardized runabouts which are quoted by owners, as well as other authorities, to be the acme of perfection and the equivalent of the high-class motor car on water.

Hutchinson Brothers, of Alexandria Bay, N. Y. are installing a 125-H.P. Balanced Four Hall-Scott marine engine in one of their stock 36 foot x 6 foot 9 inches, beautiful round bottom runabouts, which are so popular at the Thousand Islands. This boat is being built for R. E. Wilbur, of South Bethlehem, Pa. and Alexandria Bay, N. Y. Duplicates of this craft were used last season by G. E. Thing, Shoe Manufacturer of Rochester, who has a summer place at the Thousand Islands; and also by H. S. Lewis, of Beaver Falls, Pa. and the Thousand Islands.

# TOBIN BRONZE

REGISTERED U. S. PAT. OFF.



## FOR UNDERWATER PARTS

**T**HERE is no question about the proper material to specify for the underwater parts of motor boats and yachts. This point has been settled to the satisfaction of leading naval architects, engineers and boat builders during more than 30 years' experience with Tobin Bronze.

Resistance to corrosion, combined with great tensile strength and toughness, has made Tobin Bronze the recognized standard for underwater parts of all salt water vessels, from the motor boat to the ocean liner.

Tobin Bronze is best for shafts, struts, steady bearings, propellers, rudders, rudder stocks, hull plates, centerboards, fin keels, fastenings, etc. There is no satisfactory substitute for these purposes.

Tobin Bronze is manufactured solely by The American Brass Company.

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# Westinghouse

## Spark-C

REG. U.S. PAT. OFF.

### Ignition Tester



Spark-C is  
7 1/4 inches long

## When your boat begins to limp

A cylinder in your engine begins to miss fire. Your boat loses headway as the other cylinders attempt to do the work of the crippled cylinder.

You try to find the trouble. After a time you're tired, hot, disgusted, ready to give up.

But with the Westinghouse Spark-C Ignition Tester you know almost in a minute where the trouble is. There's no necessity for removing spark plugs or disturbing wiring when you have Spark-C. Touch it to the plug. Run it over the connections.

No light in the little window of the tester means an open line or a shorted plug. A dim light—faulty plug or wiring. A bright flash—spark gap too large. Medium flash shows that your engine is working perfectly.

With Spark-C anyone, amateur or expert, can check up an ignition system accurately and quickly. It's dependable, simple as A B C, and lasts indefinitely.

Spark-C Ignition Testers are sold everywhere—by marine dealers, auto supply houses, hardware stores, and garages. Or mail coupon with check or money order for \$1.50 to

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Executive Offices: 165 Broadway, New York

*District Sales Offices in Principal Cities*

Photo  
Edwin Levick,  
New York



**Price**  
**\$1.50**

In the United States

Westinghouse Lamp Co.  
165 Broadway, New York.

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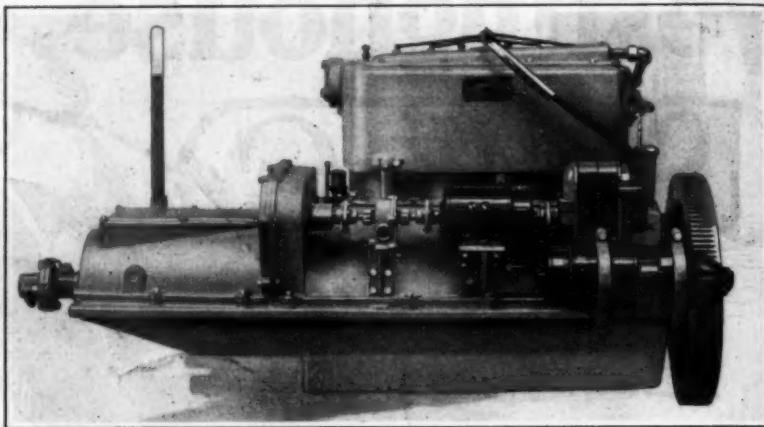
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**LNS-43**  
**50 H.P. Fay & Bowen**  
**Engine**



## SHIP AHOY!

Here we are in the midst of our summer vacation. We have been looking forward with a great deal of eagerness during the last few months, to those wonderful days at our summer camps, by lake or sea, cruising around the cool waters with our worries left behind together with the dust and germs. And here we are!

But imagine our disappointment and chagrin when we find the motor in our boat which has given us so many years of wonderful service, has at last failed us. It no longer runs as smoothly as of yore; we start out with it and we are not sure of getting back. Or perhaps our boat cuts a sorry figure amid the new smarter craft of our friends and neighbors. We begin to feel that our summer has been wasted.

We make up our minds there and then that we won't be caught again, and lest we forget, amidst the push and hustle and worry of the coming winter, we take immediate steps to look up a new engine or a modern up-to-date craft, and to get the whole matter settled before we leave the atmosphere of lake or sea.

Or perhaps there is yet six or eight weeks ahead of camp life, and by getting busy at once we can get a quick shipment of a reliable motor or a complete new craft that will round out our summer and help allay our first disappointment. At any rate there is no harm to try.



**25'-0**  
**SPORT**  
**MODEL**



*Wire or write us for full description of our complete line of stock motors and boats ready for shipment.*

## FAY & BOWEN ENGINE COMPANY

104 LAKE STREET, GENEVA, N. Y., U. S. A.

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 PHILADELPHIA: 116 Walnut St., Marine Equipment & Supply Co., Representatives  
 BOSTON: 84 Atlantic Ave., Gray-Aldrich Co., Representatives

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